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ABSTRACT

The NovaNET computer system is a mainframe system with a large network of users sharing the same computer. This manual is intended to teach instructors how to use the NovaNET system to deliver instruction to their students. The manual is divided into four main sections, each of which teaches a group of skills needed by NovaNET instructors. The first section teaches instructors how to sign on to the system, how to get help and information about the system, and how to use the network's advanced communications features. The second section describes the C-router package, which is a general purpose tool for managing instruction on the NovaNET system, and teaches first-time users how to set up a useable group of learning modules by borrowing from existing curricula. The third section teaches the normal, daily operation of C-router: how to set up a class roster, see the curriculum, and monitor student progress and performance. The last section teaches how to select lessons from the large catalog of NovaNET lessons and build them into a C-router curriculum. It is noted that the second, third, and fourth sections can be used by authors as well as by instructors. Additional information is appended and an index is provided. (DB)

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USER MANUAL

FOR C-ROUTER INSTRUCTORS

MONICA B. FORTNER
DENNIS M. DAVIS

Second Edition
June, 1989

Revised: May, 1990

IR014612

University of Illinois at Urbana-Champaign

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NovaNET® User Manual

for *C-router* Instructors

Monica B. Fortner
Dennis M. Davis

Second Edition
June, 1989

Revised: May, 1990

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This manual describes the *C-router* software system for delivering instruction. *C-router* was developed by Monica Fortner at the University of Illinois. Copyrights for this manual:

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PREFACE

The NovaNET computer system is a mainframe system with a large network of users sharing the same computer. The system was designed for delivering instruction. This manual is intended to teach instructors how to use the NovaNET system to deliver instruction to their students. The manual is divided into four main sections, each of which teaches a group of skills needed by NovaNET instructors.

A. **General Instructor Options.**
The first section teaches instructors how to sign on the NovaNET system, how to get help and information about the NovaNET system, and how to use the network's advanced communications features. (Users with author signons can skip this section.)

B. **Getting Started: A step-by-step approach.**
The second section teaches first time *C-router* users how to set up a useable group by borrowing from existing curricula.

C. **Advanced: Managing Signons**
The third section teaches the normal, daily operation of *C-router*: how to set up a class roster, see the curriculum, and monitor student progress and performance.

D. **Advanced: Building Curricula**
The last section teaches how to select lessons from the large catalog of NovaNET lessons and build them into a *C-router* curriculum.

Sections B, C, and D can be used by Authors as well as by Instructors.

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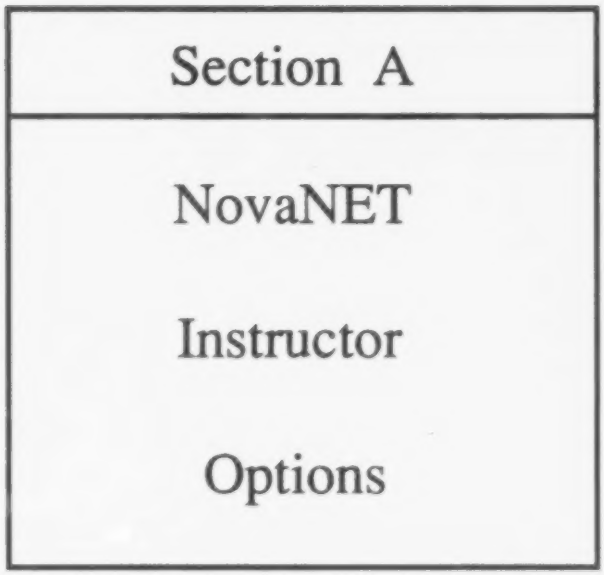

Section A
NovaNET
Instructor
Options

CHAPTER 1: SIGN-ON PROCEDURE

1. If necessary, **turn on** your terminal. Then press the key labeled NEXT one or more times until you see the display with the words ***Welcome to NovaNET*** on it.

   The NEXT key is located just to the right of the semi-colon key. If you are not using a standard NovaNET keyset, consult the key conversion chart for your terminal type.

2. Type your **signon name** (NovaNET name) at the arrow and press NEXT.

   If you make typing errors during the signon process, use the ERASE key (just above NEXT) to delete characters up to the error, then continue typing.

3. Type the name of your **group** and press SHIFT-STOP.

   The key labeled STOP is located at the extreme lower right hand of the keyset. Type the shifted form of the STOP (or any function key) just as you would type a shifted (capital) letter: while holding down the SHIFT-key, press the STOP key.

4. Enter your **password** at the arrow and press NEXT.

   a. The first time you sign on, you will be asked to **choose a password**:

      - Passwords can be any combination of letters and/or numbers up to 10 characters long.
      - When you type your password, a random number of Xs will appear on the screen at the arrow (not necessarily the same number of Xs as characters you have typed). This convention prevents others from seeing your password as you type it--or even how many characters it contains.
      - To make sure you typed what you intended, type your password again, then press NEXT.
      - Remember your password. If you forget it, you will not be able to sign on again until your group director clears your password in your permanent record, thus permitting you to choose a new one.

   b. How to **change your password**:

      - When you reach the display that asks for your password, type your password and then press LAB (instead of NEXT).
      - On the next display, press LAB to change your password. (Ignore the other options.)
      - From then on, the process is just like that for choosing a password as described above.

5. You should then see the display called *Resources for Instructors* (see next chapter).

Ask the person who gave you your signon to fill in the following information about your signon.

Signon Information

Your Signon NAME is: _____

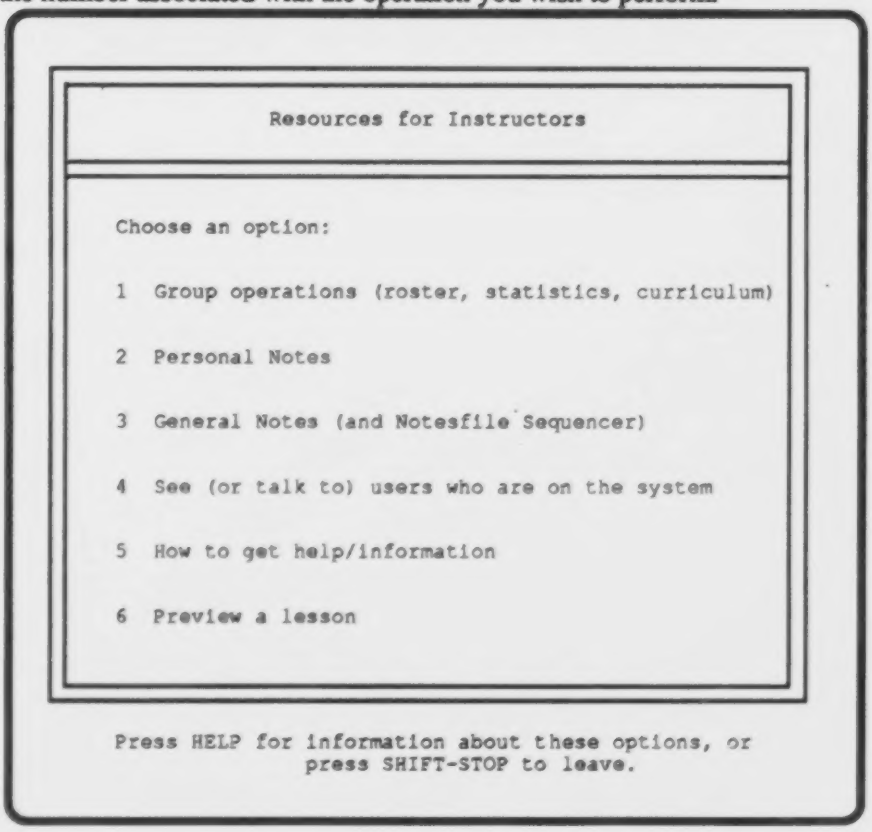
Your GROUP is: _____

Your SYSTEM is: _____

CHAPTER 2: RESOURCES FOR INSTRUCTORS

(Authors should skip this section and start with section B.)

The following display is your "front door" to the NovaNET system. You arrive on this display automatically when you sign on, and you merely press the number associated with the operation you wish to perform.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

The options on the previous display are:

Group Operations provides access to *C-router* and lets you see or change your curriculum, perform roster operations such as adding and deleting students, and monitor your students' instructional progress and performance.

Communications with other NovaNET users take place in three main ways:

- Personal Notes (p-notes) allow you to read or send private communications directly to another user. You will be informed of new p-notes by a message on the *Resources for Instructors* display.

- General notes are used for discussion between groups of users. One user enters information in the form of a note to which other users may append responses.

- The see/talk feature permits you to consult a list of many users currently signed on to the NovaNET system and communicate directly with anyone on the list by exchanging typed messages that appear on the bottom of your screens. (This is called "talk" because it is instantaneous communication--as distinguished from notes, which involve some kind of delay.)

The **Help/information** option provides access to system helps and general notes files that contain information of use to instructors and provides access to system personnel on whom you can call when you have a problem.

The **Preview** option permits you to explore the entire NovaNET lesson catalog and try out any lesson that interests you, viewing it as a student would see it. This feature is especially helpful when you consider building your own *C-router* curriculum.

The options available under group operations are discussed in detail in the other sections of this manual. The remainder of this section explains how to use the communications, help/information, and lesson preview options.

CHAPTER 3: PERSONAL NOTES (P-NOTES)

Personal notes (or **p-notes**) provide *electronic mail* service on the NovaNET system. P-notes are sent directly from one user to another and can be read only by the designated recipient.

HOW TO *WRITE* A P-NOTE

1. Designate the **recipient** of your p-note.

   a. On the ***Resources for Instructors*** display, choose option 2 (Personal Notes).

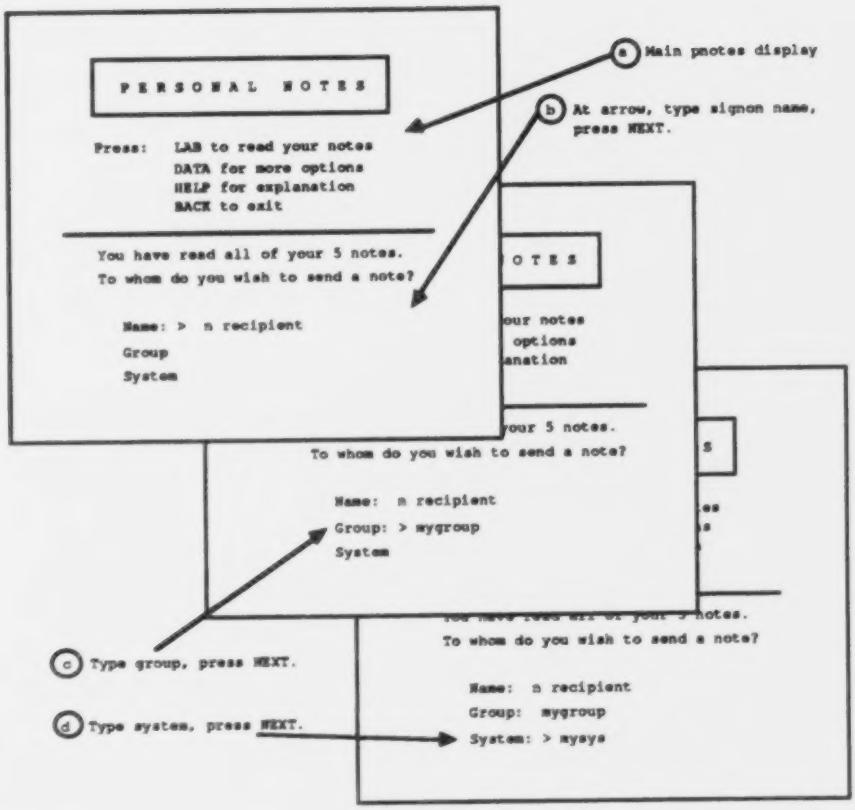
      You should see the **main P-notes display** shown in the next figure.

   b. At the arrow, type the recipient's **signon name** and press NEXT. (The arrow will move down to group automatically when you press NEXT.)

      For practice, send a p-note to yourself. Your signon name, group, and system should be given in the chapter "Sign-on Procedure" at the beginning of this manual.

   c. Type the name of the recipient's **group** and press NEXT.

   d. Type the name of the recipient's **system** and press NEXT. (You will be taken automatically to the **p-notes editor**.)


PERSONAL NOTES
Press: LAB to read your notes
DATA for more options
HELP for explanation
BACK to exit
You have read all of your 5 notes.
To whom do you wish to send a note?
Name: > n recipient
Group
System
a Main pnotes display
b At arrow, type signon name, press NEXT.
To whom do you wish to send a note?
Name: n recipient
Group: > mygroup
System
c Type group, press NEXT.
d Type system, press NEXT.
To whom do you wish to send a note?
Name: n recipient
Group: mygroup
System: > mysys

2. Type the **text** of your note at the arrow.

   The directions at the bottom of the screen explain how to move between lines, insert additional text, and make changes. If you make a mistake while typing, press the ERASE key to erase the last character, press SHIFT-ERASE to erase a whole word.

3. **Send** your p-note

   When finished composing your note, double-check the note recipient shown at the top of the screen, and press SHIFT-NEXT to send your note (or SHIFT-BACK to start over).

Shortcuts for Designating P-note Recipient

The blanks on the main p-notes display are loaded with your signon name, group, and system. Therefore, when designating the recipient of a p-note, you need only type information that differs from yours.

At the arrows on the main p-notes display:

Pressing NEXT without typing anything fills that blank with your information.

Pressing SHIFT-NEXT without typing anything fills all the remaining blanks with your information.

Examples:

To send a p-note to yourself:

Type nothing.
Press SHIFT-NEXT.

To send a p-note to someone in your group:

Type the recipient's signon name.
Press SHIFT-NEXT.

To send a p-note to someone in a different group on your system:

Type signon name and press NEXT.
Type group.
Press SHIFT-NEXT.

HOW TO READ YOUR P-NOTES

1. On the *Resources for Instructors* display, choose option **2 (Personal Notes)**.

   Note that a message telling you that you have PERSONAL NOTES which you haven't read will appear on the *Resources for Instructors* display when you have new p-notes.

2. If you do not have any new p-notes, press **LAB** on the main p-notes display to read your notes.

   If the main p-notes display does not say that you can press LAB to read your notes, then you may not have a p-note file associated with your group. You will have to ask your account director to create a p-note file for your group. If you do have a p-note file associated with your group and you still can't press LAB, then your signon is not allowed to receive p-notes. In that case, ask the person who gave you your signon if s/he can allow your signon to receive p-notes.

   If you have new p-notes, you will not have to press LAB because you will be taken directly to your first new note.

3. While reading p-notes, use these keys to move:

Key	Result
NEXT	Read next notes.
BACK	Read previous note.
5	Jump ahead 5 notes.
SHIFT -	Jump back to first p-note.
SHIFT +	Jump ahead to last p-note.
SHIFT-BACK	Return to main p-notes display.

How to Respond to a P-note

1. While reading a p-note, press SHIFT-LAB to enter the p-notes editor.

   You respond to a p-note from a user named X, by writing a p-note back to X.

   Pressing SHIFT-LAB while reading a p-note will automatically fill in the blanks that designate X's signon name, group, and system. You will then be taken right to the editor, so you can begin typing.

2. Follow the directions given on the previous pages to enter the text of your note and send it.

How to *Delete* P-notes

1. While reading a p-note, follow the directions given at the bottom of the screen:

   a. Press SHIFT-EDIT.

   b. Then press SHIFT-HELP.

   Important: Space for p-notes is allotted to groups. Therefore, to preserve space in your group's file, you should delete p-notes as soon as you no longer need them.

How to Allow Students to Read/Write P-notes

Normally, students are not allowed to receive personal notes. However, you can allow students to receive p-notes by:

a. Instructors choose option **1 (Group Operations)**. Authors should enter their group by typing the group name on the *AUTHOR MODE* display and then pressing DATA.

b. Both authors and instructors should then choose option **6 (COMMUNICATION)**.

c. Choose option **2 (Manage P-notes)**.

d. Choose **e for manage personal NOTES activity** (If option e is not available, then you need to have your account director create a p-note file for your group.)

e. Choose **c for Student access**.

CHAPTER 4: GENERAL NOTES

READING/WRITING/RESPONDING IN NOTES FILES

General notes are used for discussion between groups of users. One user enters information in the form of a note to which other users may append responses.

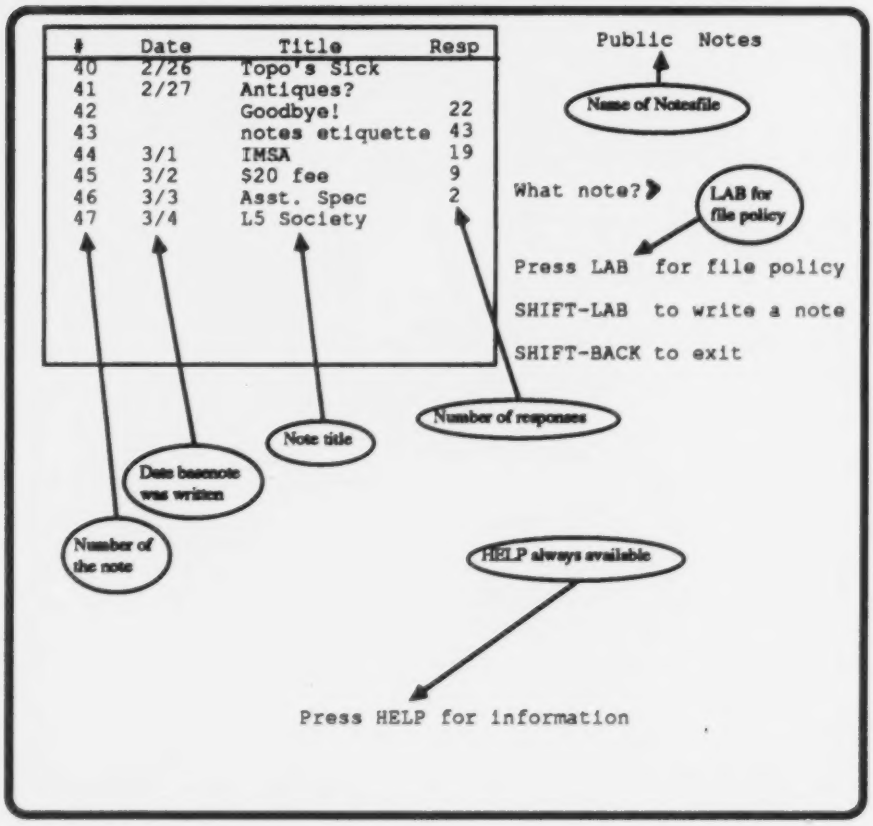
1. To reach a general notes file, press **3 on the *Resources for Instructors* display**, then type the name of a notes file at the arrow and press NEXT.

   Here are the filenames of some notes files you might want to explore:

Filename	Description
croutnotes	Questions and announcements about *C-router*
pbnotes	Information of general interest to all NovaNET users.
announce	Announcements of changes to the system.
university	Exchange between users of computers in post-secondary academic settings.
industry	Discussions about Computer Based Instruction in industry or training.
micronotes	Forum for discussing microcomputer topics, both hardware and software oriented.
notesfiles	A list of general interest notes files.

2. The notes file *index* provides information about and access to the contents of a notes file.

   - The numbers and titles of notes are displayed in the boxed index, along with the date they were written and the number of responses other users have added.
   - The index is a window that shows only the most recently written notes. To see the titles of earlier notes, press BACK one or more times. To move forward in the index, press NEXT.
   - The **file policy** explains in more detail the subject of the notes file and may offer suggestions about contents that will be deemed acceptable by the directors of the file. Press LAB to read this special note.
   - To **exit** from a notes file index, press SHIFT-BACK.



3. To read a note, **type its number at the arrow** on the index display and press NEXT.

   - While reading notes, use these keys to move among notes (also called basenotes) and responses:

From a BASENOTE		From a RESPONSE	
NEXT	to next note	LAB	to next response
BACK	to previous note	+	to next response
5	to response 5	-	to previous response
LAB	to first response	BACK	to basenote

   - SHIFT-BACK returns you to the index from anywhere within the file.

   Hint: In order to read all of the notes straight through to the end of the file, the only keypress you need to use is LAB.

4. To *write* a **note**: press SHIFT-LAB from the notes file's index display.

   a. SHIFT-LAB takes you directly into the notes editor, which works just like the p-notes editor discussed in an earlier chapter.

   b. When you have finished writing your note, press BACK.

5. To write a **response**, press SHIFT-LAB while reading a basenote or one of its responses.

   a. SHIFT-LAB takes you directly into the notes editor, which works just like the p-notes editor discussed in an earlier chapter.

   b. When you have finished writing your response, press BACK.

6. To **store your note** or response, press SHIFT-NEXT to store or SHIFT-BACK to exit without storing.

   After writing a **response**:

   a. You will be returned to note-reading mode directly, reading your new response.

   b. To return to the file index, press SHIFT-BACK.

   After writing a **basenote**:

   a. Follow the directions at the bottom of the screen to write a title for your note, then press NEXT.

      (A title can be up to 15 characters long--but blank spaces count as 1 character and capital letters count as 2 characters.)

   b. You will be returned to note-reading mode directly, reading your new note.

   c. To return to the file index, press SHIFT-BACK.

7. To **change** some aspect of your note or response right after you store it (before another user has added a response after yours), press SHIFT-EDIT while you are looking at the note.

   As the directions at the bottom of the screen indicate, the following changes are possible:

NEXT	to change contents of note or response
LAB	to change the title
SHIFT-HELP	to delete your note or response

SOME TIPS ABOUT NOTE ETIQUETTE

Here are some guidelines concerning appropriate behavior in notes files:

- Read the policy note for the file before writing in it. There may be a more appropriate file for your question or comment. If in doubt, write a p-note to the file director (the person who wrote the policy note) to ask about writing a note in the file.

- Read some of the notes already in the file, to get a feel for the types of topics covered and the general tone of the file. You may find that the topic you are interested in has already been discussed. Perhaps you can add to the discussion through a response rather than starting a new string of notes.

- Don't refer to previous notes by number. The numbers often change when inactive notes are deleted to make room for new notes. Refer instead to the date and title of a note.

- Stick to the subject of the basenote in the responses. If something in a string of notes sparks an idea that is really a separate topic, put it in a new basenote.

- Conversely, don't start a new note in response to an old one. Instead, create a response to the basenote.

- Keep your notes concise, but if you have more to say than will fit in 20 lines, just put the rest into one or more responses.

- If your comment or question is personal or not of general interest, then put it in a p-note rather than in a group file.

- Emotional tones are difficult to project in a text-only medium. Capital letters are used to indicate shouting: "I would NOT do that!" Asterisks around an emotionally descriptive word are used to indicate more subtle feelings: *sigh*, *snicker*, *smile*, etc.

NOTES FILE SEQUENCERS

Notes files don't have a linear structure. New information entered into a notes file may be in the form of either a new note or a new response to an old note. Therefore, when you read a notes file, it's impossible to tell from the index alone what new information has been entered since the last time you read it.

The **notes file sequencer** is a tool that permits you to specify a list of notes files you want to read regularly. When you enter that list through the sequencer, the computer keeps track of the last time you read notes, and jumps directly to notes and responses you have not read, ignoring the others.

HOW TO SET UP YOUR NOTES FILE SEQUENCER

1. Follow these steps to reach the *Sequencer Editor Options* Display:

   - Press **3 on the *Resources for Instructors*** display.
   - On the *Choose a notes file display*, press **LAB** for Notes file Sequencer.
   - You should see a short description of the Sequencer. Press **NEXT** after reading the description, and you should see the *Sequencer Editor Options Display* (shown in following figure).

2. To add files to your sequencer list:

   a. Type a **filename** at the arrow and press NEXT. (In addition to the notes files mentioned previously, you will want to add the student notes files of all of your *C-router* groups to your sequencer list. See the chapter of this manual which discusses student notes.)

   b. Type another filename and press NEXT.

   Type a number to designate its position in the list and press NEXT again.

   c. Repeat the preceding step until you have added all the files you want to your list.

3. Press SHIFT-LAB to set your Bypass Options.

   Bypass options permit you to choose various levels of automation for the operation of your sequencer. Turning all the options on makes your sequencer as automatic as possible.

   On the Bypass Options display, press 1, 2, and 3 to turn on all of your bypass options.

   NOTE: You have to set up your sequencer only once. Whenever you wish to use it, follow the directions listed under "How to Use Your Sequencer".

HOW TO USE YOUR SEQUENCER

1. Follow these steps to get to your sequencer.

    a. From the *Resources for Instructors* display, press **3 for General Notes.**

    b. From the *Choose a notes file* display, press **LAB.**

    c. From the display called *Notes File Sequencer* (which displays the settings of your Bypass Options at the top of the screen), press **DATA** to start your sequencer.

2. Reading notes on your sequencer:

    - When there are no new notes or responses in a file, a display identifying the name of the file will be presented briefly, then the sequencer will automatically pass on to the next file in your list.

    - When there are new notes or responses, the sequencer will pause automatically. If you have already read a basenote, but have not read all of the responses, the sequencer will pause on the basenote display before taking you to the new response.

    - After reading a note or response, press DATA to move on.

    - Continue pressing DATA from every new basenote or response display until the sequencer has presented you with all of the new notes and responses.

    - When all of the new notes and/or responses have been presented, the sequencer will take you to the index of the notes file in which you were reading.

    - To return to the sequencer, press SHIFT-BACK. The computer will seek the next file on your list with new notes or responses, and pause when it finds one.

    - The automatic process repeats for each notes file in your sequencer list.

    - If you accidentally press DATA from an index and end up on the *Set to read notes* display, just press SHIFT-BACK to restart the sequencer.

    - When you have cycled through your entire list, you will be returned to the main NOTES index. Press BACK twice to return to the *Resources for Instructors* display.

How to Make Changes in your Sequencer List of Files

1. Follow these steps to reach the *Sequencer Editing Options* Display:

    a. **Press 3** on the *Resources for Instructors* display.

    b. On the *Choose a notes file* display, **press LAB**.

    c. From the *Notes File Sequencer* display, **press LAB** to reach the *Sequencer Editing Options* display.

2. These changes are possible:

    - To **add another file** to your list, type its name at the arrow, press NEXT, specify its list position, and press NEXT again to enter it in the list.

    - To **change the position** of a file in the list, type its name at the arrow, press NEXT, then follow the instructions and press LAB "to change position".

    - To **delete a file** from your list, type its name at the arrow, press NEXT, then press SHIFT-HELP to delete it.

    - When you have **finished** making changes, press SHIFT-STOP to return to the *Resources for Instructors* display. (From there, if you wish to enter your sequencer, follow the instructions on the previous page.)

CHAPTER 5: SEE (TALK TO) OTHER USERS

In addition to p-notes and general notes files, NovaNET communications lets you "talk" (communicate directly) with another instructor or author.

1. On the *Resources for Instructors* display, press option 4, which takes you to the following display. (The two options on this display are described on the following pages.)

See (Talk to) Other Users
Choose an option:
1) See Users at your Site
2) See (and talk to) Instructors and Authors on System
Press BACK for other options.

SEE USERS AT YOUR SITE

A collection of terminals is called a site. The terminals in a site do not necessarily have to be in the same location. The terminals are related because the same set of rules determines how the terminals are used and because all of the users at the site share the same block of computer memory.

The following display lists the users at a site.

```
                Site "centen"                users:  16
                Your site owner is frank/s.

        EM Allotted:  576251 words  (Base Allotment: 88600)
        EM in use:         40506 words


Station     Name of user      Group          Type          EM
-------------------------------------------------------------
  2-1       kane              cerl           a           4412
  2-2       j smith           math           s           1500
  2-3       p rather          math           s           1500
  2-4       sally             math           a           2955
  2-6       livingston        reading        i           3434
  2-7       frank             s              a           5343
  2-8       chan              pso            a           4975
  4-2       adams             reading        s           1500
  4-4       johnston          reading        s           1500
  4-5       b holden          math           s           1500
  4-7       godwin            prt            a           5645
  4-10      juriton           math           s           1500
  4-11      yalen             ged            s           1500
  4-15      d mackenzie       ged            s           1500
  4-16      lewis             math           a           6533
  4-27      findley           m              a           7432
```

This display lists:

- station (a number which identifies each terminal)
- name of user (signon name)
- group (signon group)
- type (s = student, m = multiple, i = instructor, a = author)
- EM (extended memory, the amount of computer memory that each user is using)

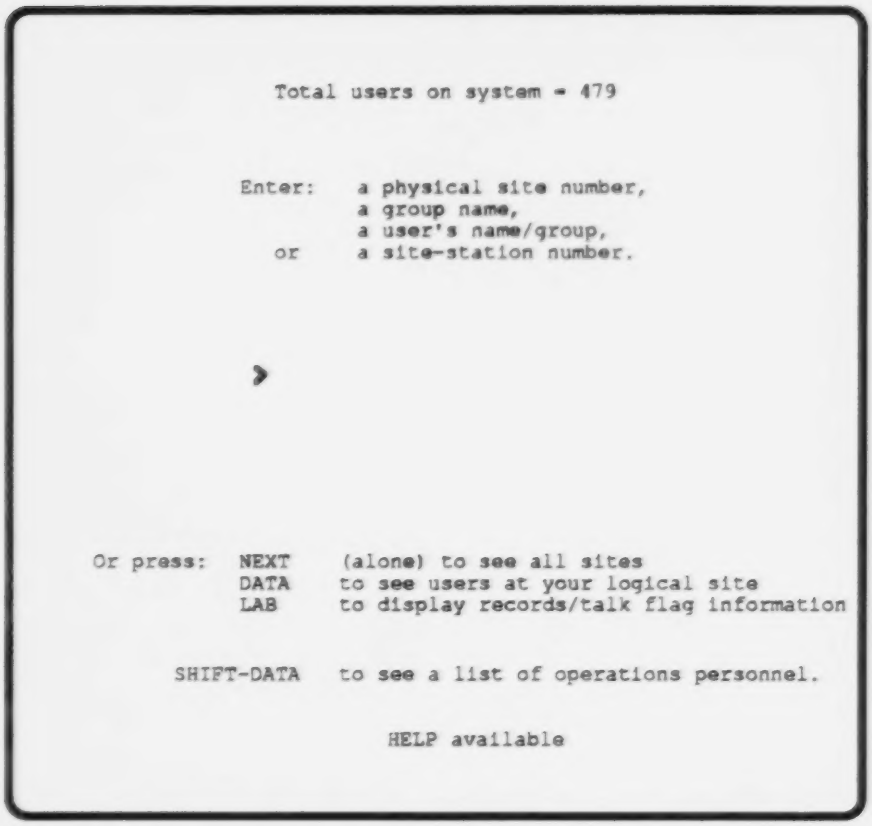
Information about the total amount of EM in use at the site is given at the top of the display.

- EM Allotted: is the amount of memory that the entire site can use at this moment
- Base Allotment: is the minimum allotment that the site can have. In other words, if the system is full, this is the allotment that the site will get.
- EM in use: the amount of memory that the site is currently using.

SEE INSTRUCTORS AND AUTHORS ON SYSTEM

This option allows you to see instructors and authors on the entire system. You can choose one of the following ways to display:

a. type the **name of your group** (or any other group) to see who else is signed on.
b. press **DATA** to see users who may be signed on at locations near your terminal,
c. press **NEXT** to see all instructors and authors who want to be included in the list and who are currently signed on.


Total users on system = 479
Enter: a physical site number,
a group name,
a user's name/group,
or a site-station number.
>
Or press: NEXT (alone) to see all sites
DATA to see users at your logical site
LAB to display records/talk flag information
SHIFT-DATA to see a list of operations personnel.
HELP available

Not all instructors and authors are included in this list. Each instructor and author must decide whether or not s/he wants to be listed. If you would like to be included in this list:

- **press LAB** to display records/talk flag information.
- choose the option **Appear in "on-system" list of users.** (If this option says "yes" you will be listed. To change this option, type the letter associated with the option.)

2. In order to *talk* to someone in the list, press DATA.

a. At the arrow that says *Enter name*, type the **signon name**, a **slash**, and the **group** of the person to whom you wish to speak, then press NEXT.

For example:
Enter name > glen/math

b. If that person is signed on and available for TERM-talk, you will get a message that s/he is being paged. The person who you are calling will also receive a message informing him/her that you wish to talk.

The person you are calling presses the TERM key (the shifted form of the key labeled TERM/ANS), types "talk" at the arrow, and the connection is made.

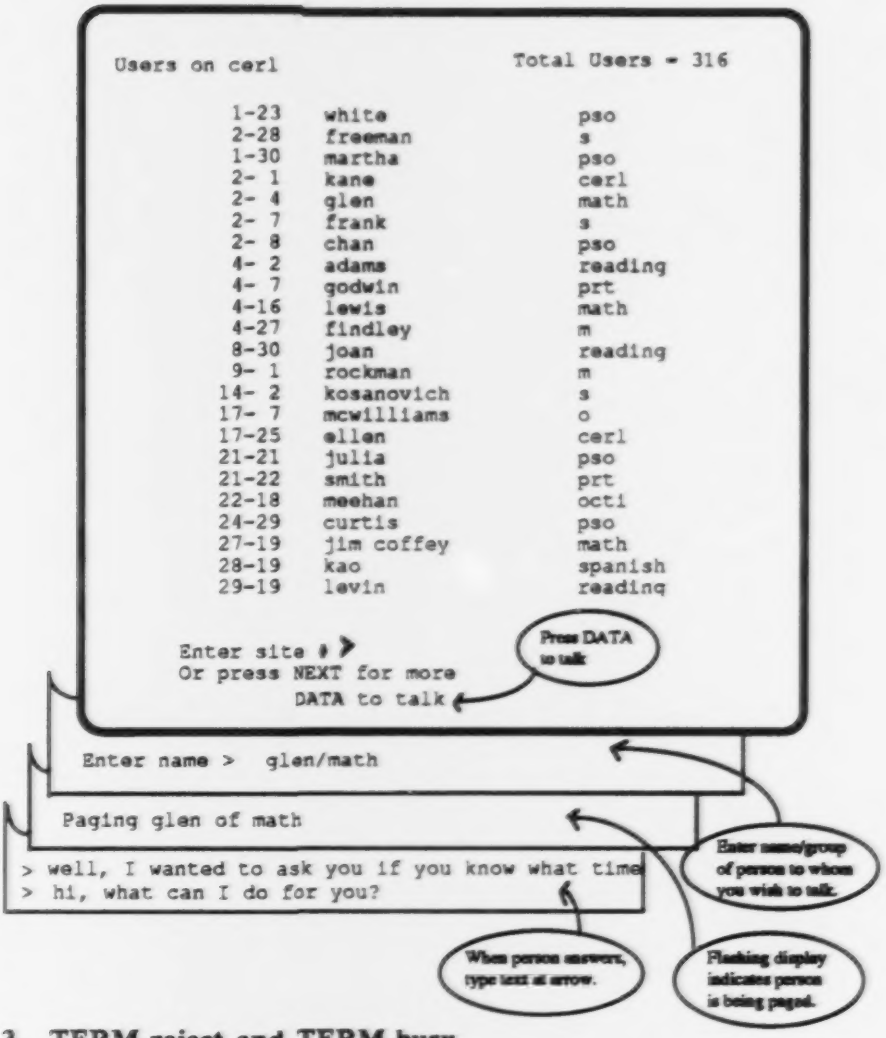
(If the person with whom you wish to communicate is busy and cannot talk, a message to that effect will appear on your screen.)

c. Two arrows appear at the bottom of your screen, as shown in the figure.

Whatever you type will appear on one line; whatever the other person types will appear on the other line. Each of you will see whatever is printed on both lines.

d. When your line is full (or at any time) you may press LAB to erase the text on your line. You can then type additional text which will start again from the first space at the left.

e. When you have finished your communication, either of you may press SHIFT-BACK to end TERM-talk. (Before pressing SHIFT-BACK, it is customary for both parties to type "bye" as a signal that the communication is complete.)


Users on cerl
Total Users = 316
1-23 white pso
2-28 freeman s
1-30 martha pso
2- 1 kane cerl
2- 4 glen math
2- 7 frank s
2- 8 chan pso
4- 2 adams reading
4- 7 godwin prt
4-16 lewis math
4-27 findley m
8-30 joan reading
9- 1 rockman m
14- 2 kosanovich s
17- 7 mcwilliams o
17-25 ellen cerl
21-21 julia pso
21-22 smith prt
22-18 meehan octi
24-29 curtis pso
27-19 jim coffey math
28-19 kao spanish
29-19 levin reading
Enter site # >
Or press NEXT for more
DATA to talk
Press DATA to talk
Enter name > glen/math
Paging glen of math
> well, I wanted to ask you if you know what time
> hi, what can I do for you?
Enter name/group of person to whom you wish to talk.
When person answers, type text at arrow.
Flashing display indicates person is being paged.

3. TERM-reject and TERM-busy

If someone attempts to TERM-talk you when you cannot be disturbed, press TERM (the shifted form of TERM/ANS) and type "reject" at the arrow. You may add a short message if you wish. For example:

I can't talk now but I'll call you asap.

If you know in advance that you do not want to receive TERM-talks, you can press TERM and type "busy" at the arrow, then press NEXT and continue working. Anyone who tries to talk to you will be notified that you are not able to take TERM-talks. (To cancel this option, press TERM, type "busy", press NEXT, and then press DATA "to be available again" as the screen directions indicate.)

CHAPTER 6: HOW TO GET HELP/INFORMATION

Many NovaNET resources help solve problems and answer questions.

1. On the *Resources for Instructors* display, choose option **5 (How to get Help/Information)**. Then press HELP for a brief description of the function of each listed option.

How to Get Help/Information
Choose an option:
a. System Schedule and Information (bulletin board)
b. System Aid ("aid")
c. Notes about C-router ("croutnotes")
d. Notes to PSO Staff ("psonotes")
e. Notes to System Operators ("opsnotes")
f. System Lesson Notes ("sysln")
Press BACK for other options, or
HELP for information.

2. For access to a listed option, press its letter.

a. System Schedule and Information (bulletin board)
This displays the hours of system availability and the phone numbers for where more information can be obtained.

b. System Aid ("aid")
Lesson Aid contains detailed information about using the system.

c. Notes about using *C-router* ("croutnotes")
This notes file is for discussion about *C-router*. Any questions, announcements, or problems about *C-router* can be discussed in this notes file.

d. Notes to PSO Staff ("psonotes")
This notes file is for storing any request for help/information about the system. For example, if you want to know how to use any of the system features, you could write a note in "psonotes".

e. Notes to System Operators ("opsnotes")
This notes file is for storing a report about any sudden problem which interferes with your use of the system. For example, you should report any problems with disk errors or backup problems in this notes file.

f. System Lesson Notes ("sysln")
This notes file is for storing any report about system lessons. For example, if your notes file sequencer is not working, you could report it in this notes file.

CHAPTER 7: PREVIEWING LESSONS

At any time, you may look at any lesson in the NovaNET lesson catalog, even lessons that are not in your *C-router* curriculum. This feature is especially valuable if/when you decide to build your own *C-router* curriculum.

1. Choose option 6 (Preview a lesson) on the *Resources for Instructors* display.

   Two kinds of access are available:

   a. Type the **filename** of a lesson you want to see at the arrow, then press NEXT.

   Or, if you don't know the filename,

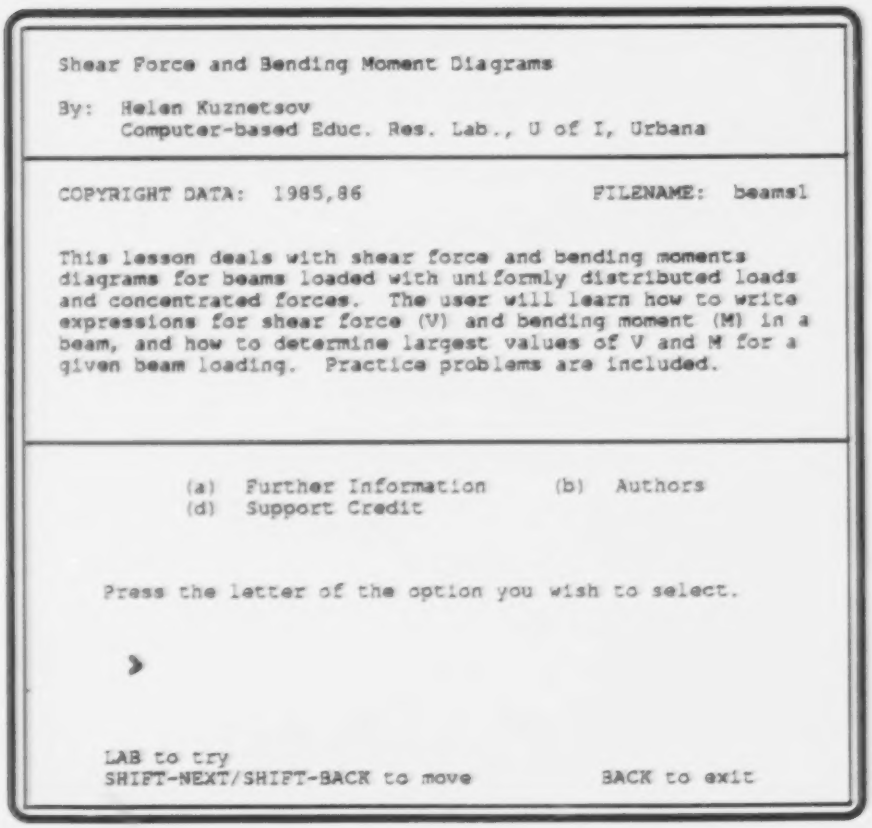
   b. Press LAB to see the NovaNET **lesson catalog,** from which you can choose lessons by **author, title,** or **subject.**

      Unless you know the name of an author whose lessons you want to see, or the exact title of a lesson, it is best to search the catalog by subjects.

      - To "try" the lesson, press LAB from the lesson's basic catalog entry.

      When you have located a lesson of interest, the basic entry (see next figure) in the catalog provides the author's name, copyright date, a short summary of the lesson's contents, additional information about the authors and the instructional context of the lesson (grade level for which it is intended, prerequisites, etc.).

From the basic entry, you can "try" the lesson (preview it, seeing it as a student would see it) by pressing LAB. The basic entry for the lesson also lists the filename of the lesson. It is a good idea to jot down the filenames of lessons you like, so that in the future you can enter them directly. For example: the filename for the following lesson is "beams1".


Shear Force and Bending Moment Diagrams
By: Helen Kuznetsov
Computer-based Educ. Res. Lab., U of I, Urbana
COPYRIGHT DATA: 1985,86
FILENAME: beams1
This lesson deals with shear force and bending moments diagrams for beams loaded with uniformly distributed loads and concentrated forces. The user will learn how to write expressions for shear force (V) and bending moment (M) in a beam, and how to determine largest values of V and M for a given beam loading. Practice problems are included.
(a) Further Information
(b) Authors
(d) Support Credit
Press the letter of the option you wish to select.
>
LAB to try
SHIFT-NEXT/SHIFT-BACK to move
BACK to exit

Section B

Getting Started:

A Step-by-Step

Approach

CHAPTER 1: INTRODUCTION

Computers are useful not only for delivering instruction but also for managing instruction. Using computers to deliver instruction is called Computer Assisted Instruction (CAI). A CAI lesson is an interactive and individualized way to teach students via a computer. Using computers to manage instruction is called Computer Managed Instruction (CMI). CMI includes organizing and presenting students with a list of lessons, administering tests to students, storing data about the students' performance, and preparing performance reports for the instructor.

There are several advantages to using a CMI system. First, since the computer has the capability of storing a great deal of information about the student's performance, the computer can individualize the instruction to better meet a particular student's needs. Second, since the computer will be monitoring the student's progress, the teacher spends less time doing routine management duties. This means that more of the teacher's time can be spent delivering instruction in a face-to-face environment. Finally, since a computer can keep track of a large amount of detailed information, the computer can handle much more complex management schemes than would be possible by a human teacher.

This section describes the *C-router* package which is a general purpose tool for managing instruction on the NovaNET system.

***C-router* was designed to be:**

1) general purpose (meet most of the needs, of most of the users, most of the time)
2) simple to use
3) as flexible and powerful as possible given the restraints of #1 and #2. (In other words, *C-router* should allow users to do as much as possible as long as *C-router* remains general purpose and simple to use.)

A *C-router* curriculum is basically a list of lessons and can contain:

- about 4000 lessons
- about 600 displays (modules) with simple graphics such as lines, circles, boxes, vectors, arcs, and sized and rotated text
- several different ways of organizing and sequencing displays
- sophisticated criteria for determining completion and progression

The student performance data which is saved by *C-router* includes:

- score for each lesson
- completion data for each lesson
- amount of time spent in lesson before lesson completed
- amount of time spent in lesson after lesson completed (review time)
- number of tries in lesson
- last date spent in lesson
- 1 extra word of "status" for every lesson entered (status is a computer word where programmers can store extra information)

CHAPTER 2: USING AN EXISTING CURRICULUM

This chapter is intended for first-time *C-router* users. As you become more experienced, you can use the other chapters to learn more detailed information. If you follow the instructions in this chapter, you can create a useable *C-router* group. (This section assumes that you have an account director who can create the *C-router* group and a *C-router* signon for you. Account directors should read the Appendix of this manual about Training.)

The first time you use *C-router*, you will probably want to use an existing curriculum. As you become more familiar with the NovaNET lessons, you may want to customize the curriculum to fit your own needs. This chapter describes how to use an existing curriculum. The other chapters in this section describe how to customize the curriculum.

You need to choose a curriculum that already exists. You can use either "revcur3" if you want a Secondary School Curriculum or "elemcur1" if you want an Elementary School curriculum. These curricula were compiled by Lezlie Fillman at the University of Illinois.

1. Basic Signon information.

You should already have an instructor signon. (An instructor signon is a type of signon which allows you to create assignments for students.)

If you already have a signon in a group which you can edit, fill in the following information about your signon. Then skip to step 2.

INSTRUCTOR

Signon Information

Signon NAME is: _____

GROUP is: _____

If you do not have an instructor signon, or need a new signon for a new group, you will have to ask your account director to create a group for you.

If you do not know who is your account director, ask the person who introduced you to the NovaNET system.

Ask your account director to:

- create a *C-router* group
- set the WRITE records and the READ records codewords in the group
- create a *C-router* student data file
- set the WRITE records and the READ records codewords in the student data file
- Enter the group and:
    - Specify the curriculum. You can use either "revcur3" if you want a Secondary School Curriculum or "elemcur1" if you want an Elementary School curriculum. These curricula were compiled by Lezlie Fillman at the University of Illinois.
    - Specify the student data file name.
    - Create an instructor signon for you and give the instructor "edit" access to the group.

You will need to tell your account director the following information:

- name for the group
- maximum number of students in the group
- average number of lessons that each student will study
- which curriculum you want to use. You can use either "revcur3" if you want a Secondary School Curriculum or "elemcur1" if you want an Elementary School curriculum. These curricula were compiled by Lezlie Fillman at the University of Illinois.

It is important for you to remember your signon name and group. Write your name and group in the box on the previous page.

2. Sign on

- enter your instructor signon **name** on the display that says *Welcome to NovaNET* and then press NEXT.
- enter your new **group** on the display that asks for your group and then press SHIFT-STOP. (To press SHIFT-STOP: while holding down the SHIFT key, press the STOP key.)
- choose a **password** and type it on the display that asks for a password. The computer will display a random number of X's so that no one can read your password. You will have to enter your password two times.
- Follow the directions on the computer display until you reach the *Resources for Instructors* display. This section of the manual will briefly discuss option 1 (Group operations). It is important for you to learn the other options available on this display. The first section of this manual (NovaNET Instructor Options) describes these other options.

Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

3. Review Curriculum

- On the *Resources for Instructors* display, choose option 1 for **Group Operations.** Press NEXT to work with your own group. This should take you to the *Managing Instruction* display.

MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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Board of Trustees of the University of Illinois
Press COPY for more information about the Copyright.

- On the *Managing Instruction* display, choose option 1 for Try **Curriculum.**

  The curriculum is organized into a series of displays called modules. You can leave a module by either going to another module or going to a lesson.

- Spend some time looking at the curriculum so that you can decide what you would like your students to study.

  If you find that you don't want to complete a lesson, press SHIFT-STOP to return to the curriculum menu.

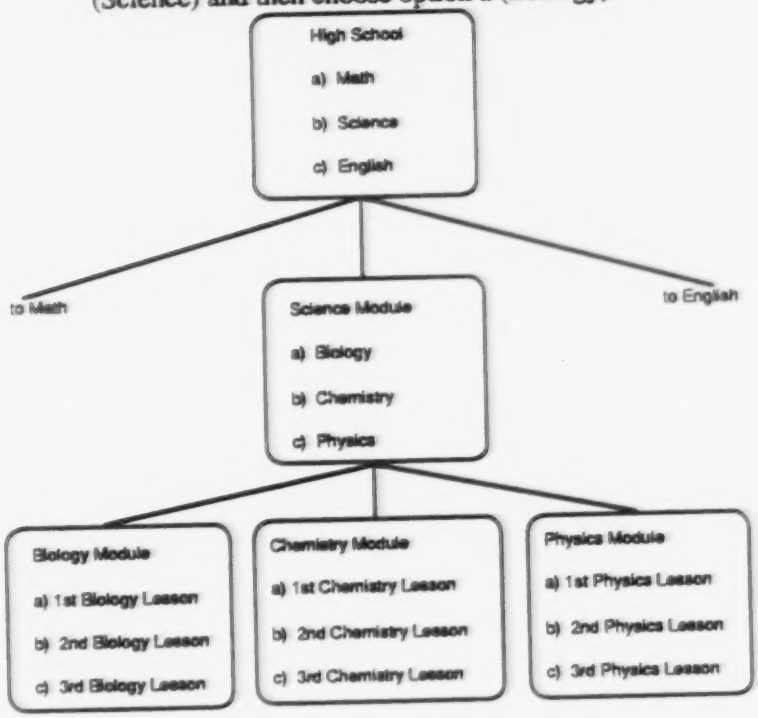
  If you would like your students to study the entire curriculum, skip to step 5.

- When you are looking at a module, you will notice that you can go to another module or to a lesson by pressing a letter (a,b,c, etc.). It is sometimes difficult to tell when you press a key, whether you are going to go to another module or to a lesson. If you press SHIFT-DATA when looking at the module, a list will plot on the right side of the display. Next to every letter option, you will see either an M- or an L- followed by a name. The M indicates that if you choose that option, you will go to another module. The L indicates that if you choose that option, you will go to a lesson. (If you try to press SHIFT-DATA and a list doesn't plot on the right side of the display, you are probably in a lesson and not a module. You can return to the module by pressing SHIFT-STOP.)

- You need to select one module which your students should see first. We will call this module the initial module.

You can think of the modules as being organized into an upside-down tree structure. The first module of the curriculum is the root of the tree. The branches of the tree are the paths that the students use to get to other modules. The student may take several branches before finally getting to a module which lists lessons.

The following example shows a small High School curriculum with the High School Module as the root. To get to the Biology Module, the student would first choose option b (Science) and then choose option a (Biology).



Often you will want your students to study more than one module. In this case, make sure that they can get to all of the modules from the initial module.

Let's assume that in the High School curriculum, you want your students to study the Biology lessons and the Chemistry lessons. Since there is no connection between the Biology Module and the Chemistry Lesson, the students must enter the curriculum at the Science Module. Therefore, the initial module for this curriculum would be *Science Module*.

- When you are looking at the module which you want your students to see first, press **SHIFT-DATA to find out the name of that module.** The name will be displayed on the first line of module. Write this module name below; we will call it the initial module.

Initial Module: _____

- When you have written down the name of your initial module, press **SHIFT-ERASE** to return to the *Managing Instruction* display.

4. Set Group-Specific Initial Module

You have now selected a module which your students should see first. The group needs to know the name of this initial module. This step describes how to set the initial module for your group. You should be on the *Managing Instruction* display.

MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNOBS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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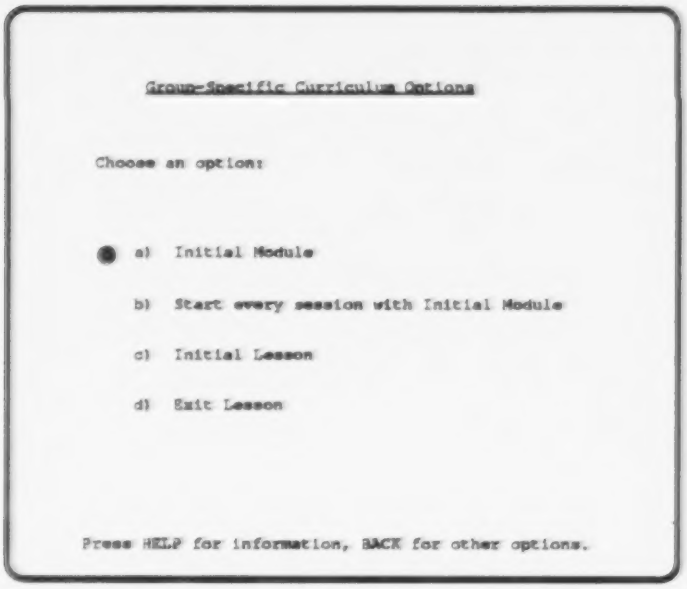
Press COPY for more information about the Copyright.

- Choose option **3** for **Group-Specific Curriculum Options**. You will then see the menu for *Group-Specific Curriculum Options*.


Group-Specific Curriculum Options
Choose an option:
a) Initial Module
b) Start every session with Initial Module
c) Initial Lesson
d) Exit Lesson
Press HELP for information, BACK for other options.

- **Choose option a for Initial Module.** You should now see the *Initial Module* display.

Initial Module
The students in this group will enter this module the first time they sign on.
Currently: Initial Module for Curriculum
Enter the module name:
(LAB for default module.)
Press DATA for a list of modules, BACK for other options.

The line in the middle of this display indicates that the initial module is set to the default. You can specify that the students will start with a different module. To do this, enter the initial **module name**, and then press NEXT.

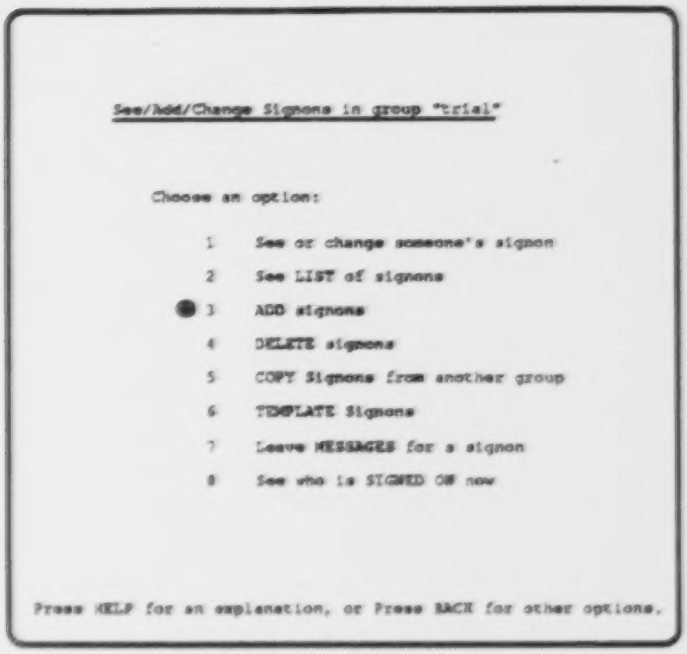
Now, the line in the middle of the display should indicate your initial module. Press BACK to return to the *Group-Specific Curriculum Options* and then press BACK one more time to return to the *Managing Instruction* display.

At some time, you may decide that you want your students to see more modules. You can return to the *Initial Module* display, and press LAB to re-set the initial module to the default module. Then repeat steps 3 and 4 to select and set a new initial module.

5. Add Signons to your group

In order for your students to use the NovaNET system, they need student signons. Users with student signons study lessons, but don't make assignments like users with instructor signons. You should now be on the Managing Instruction display.

- Choose option **4** for **See/Add/Change SIGNONS and MESSAGES.** This should take you to the *See/Add/Change Signons* display.


See/Add/Change Signons in group "trial"
Choose an option:
1 See or change someone's signon
2 See LIST of signons
3 ADD signons
4 DELETE signons
5 COPY Signons from another group
6 TEMPLATE Signons
7 Leave MESSAGES for a signon
8 See who is SIGNED ON now
Press HELP for an explanation, or Press BACK for other options.

- Choose option **3** to **ADD signons**. This should take you to the Adding Users display.

- Choose option **1** to add **Student signons**.
- Type the first student's name and press NEXT. You should try to follow a convention when naming your student signons. For example, always use last names, or use first initial - followed by a space - followed by the last name.
- Continue adding names until all of your students have been entered.
- Add a student signon for yourself for testing purposes. Write the name of your student signon in the box below. The group for the student signon is the same as the group for your instructor signon.

STUDENT

Signon Information

Signon NAME is: _____

GROUP is: _____

6. Test student signon

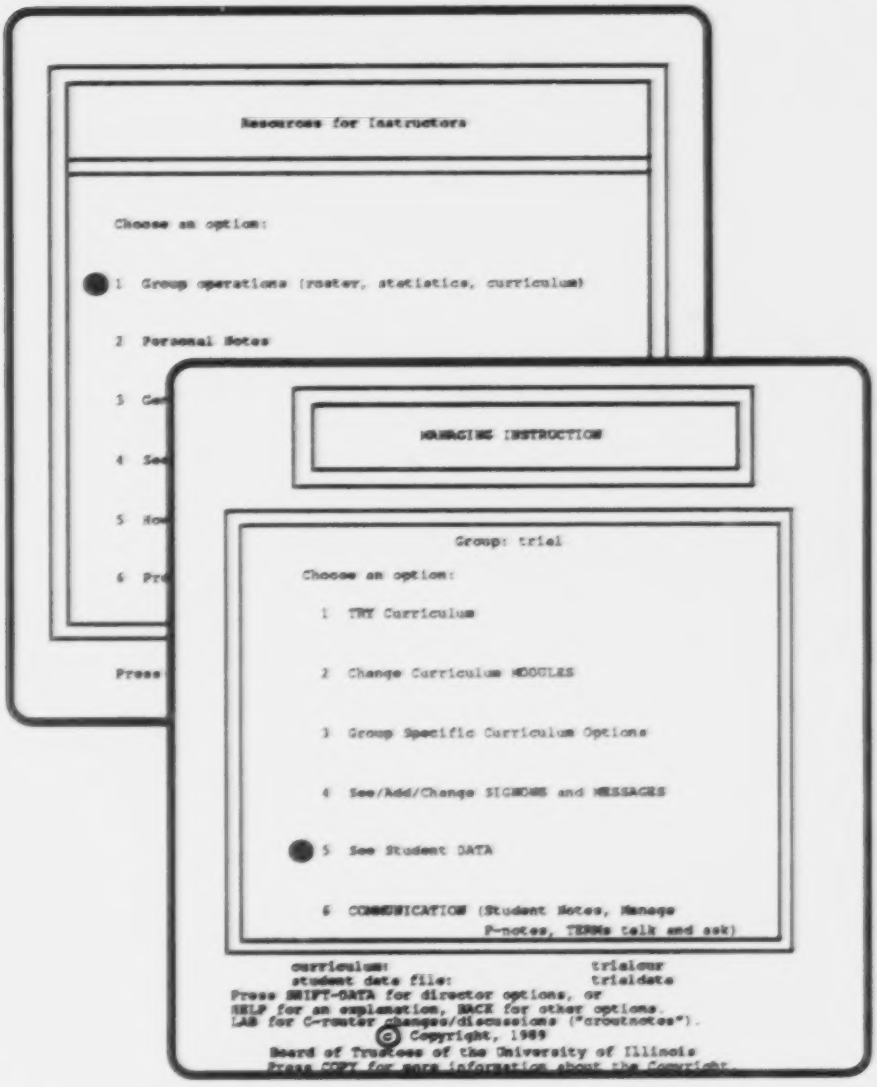
Your group is ready to use. But, it is a good idea to test it out yourself before you have your students use it.

- Sign off by pressing SHIFT-STOP several times until you see either the *Press NEXT to Begin* display or the clock display.
- Then sign on with the student signon that you created for yourself. (Use the name and group on the previous page.)
- Study a few lessons and then sign off. (To sign off, press SHIFT-STOP until you see either the *Press NEXT to Begin* or the clock display.)

7. Check Student Data (skip this step if you are not saving student data)

Now that you have signed on and studied a few lessons, you should check and make sure that the student progress data is being saved correctly.

- Sign on with your instructor signon. (Your instructor signon should be written down in the beginning of this chapter.) Follow the directions until you reach the *Resources for Instructors* display.



- Choose option **1** for **Group Operations** and press NEXT to work with your own group. This should take you to the *Managing Instruction* display.

- While on the *Managing Instruction* display, choose option **5 for See Student Data.** This will take you to the Student data display.

STUDENT DATA
Choose an option:
1) Data for One Student
2) Data for All Students
3) Grading
4) Change Group Name
5) List Groups
6) Calculate Space Remaining in Student Data File
group: trial
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file
or BACK for other options.

- On the Student Data display, choose option **1** for **One Student.**

- Enter the **name** of your student signon and press NEXT. This will take you to the *Data for One Student* display.

- Choose option 1 to **See Lesson/Module Data.** You should now see a *Data for One Student* display with four options.

Data for One Student
Student's name: neil/trial
Choose an option:
1 See the data for modules which student has entered.
2 See lesson data by module name.
3 See data for an individual lesson.
4 See module summaries (up to 26 on display).
5 See Tracks for Testing 1-2-3 Tests
or BACK for other options.

- Now, choose option **1** to **See the data for modules which the student has entered.**
- The computer will generate a list of modules which the student has studied. Press **DATA** to see the data for the first module.

- You should see a display like the following. This display lists the lessons in a module named "fractions". Module "fractions" contains two lessons. The lessons are listed by filename. The filename is a unique name that the computer uses to identify the lesson. "pizza" is the filename for the first lesson in this module and "rec" is the filename for the second lesson in this module.

Data for: neil/trial Module: fractions

done:- / time:81 min. / start: 11/23/86 / last: 12/ 22/86

lesson name	score	done	time 1	time 2	tries	date
A pizza		+	43	0	1	11/23/86
B rec	97	*	38	11	2	12/22/86

Press NEXT for the next module, BACK for other options.
SHIFT-DATA to change data.
Press HELP for an explanation of the symbols.

The data for each of the lessons shows:

score
a score for the lesson, between 0 - 100.

done
* if the lesson is completed
+ if the lesson has no end
- if the lesson was not completed

time 1
time spent in lesson before it was competed

time 2
time spent reviewing lesson (time spent in lesson after it was completed)

tries
number of times this lesson has been tried

date
last date that the student was in the lesson

For more information on Student Data, see the section of this manual on "Student Data".

8. Instruct Students how to sign on

Your students are now ready to use the computer. They will need to know the signon name which you just created for them. They will also need to know the group name. They can select their own password.

CHAPTER 3: PRACTICE EDITING A CURRICULUM

This chapter gives step-by-step directions for changing a temporary curriculum. This allows you to safely practice editing, or changing, a *C-router* curriculum. When you feel confident with your editing skills, you can customize your own curriculum (next chapter).

Creating Practice Curriculum

You will need to have your account director create a new curriculum file.

1. **Ask your account director to:**
   - create a temporary *C-router* curriculum file which can hold 4 modules.
   - set the WRITE records codeword in the curriculum file.

   Be sure to remember the name of the curriculum file and the WRITE records codeword. You can write the curriculum name below. If you write down your codeword, be sure to only write it in a place where no one else will see it.

Temporary Curriculum

Curriculum name: _____

Copying Modules

You will need to copy two modules from the *C-router* curriculum *tryedit* into your temporary curriculum. The module names are *index* and *math*.

1. **Sign on** to the computer.
   - enter your instructor **signon name** on the display that says *Welcome to NovaNET* and then press **NEXT**.
   - enter your **group** on the display that asks for your group and then press SHIFT-STOP. (To press SHIFT-STOP: while holding down the SHIFT key, press the STOP key.)
   - choose a **password** and type it on the display that asks for a password. The computer will display a random number of *X*'s so that no one can read your password. You will have to enter your password two times.
   - Follow the directions on the computer display until you reach the *Resources for Instructors* display.

2. **Enter Curriculum**
If your curriculum is associated with a group, you can edit the curriculum through Group Operations. However, this practice curriculum is not associated with a group, so you should use the Preview a Lesson option to edit this curriculum.

Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Choose option **6** to **Preview a lesson** (from the *Resources for Instructors* display).

- Enter your temporary **curriculum name** and press NEXT.
- Press **NEXT to Edit** your curriculum. (You should now be on the *Curriculum Editor* display.)

CURRICULUM EDITOR
Type the name of your curriculum file.
(Then press NEXT to EDIT, or LAB for INSPECT ONLY.)
Press NEXT to use "temporary".
Press HELP for information about this lesson, or
press SHIFT-STOP to leave this lesson, or
press BACK for other options.

- Enter the **WRITE records codeword** and press NEXT.
  You should now see the menu choices for the *Curriculum Editor* display.

3. COPY modules

Now you should copy modules from curriculum *tryedit* to your own curriculum.

CURRICULUM EDITOR
curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

Choose option **5** to **COPY a Module.**

- Enter ***tryedit*** for the name of the curriculum to copy from and press NEXT.
- Press **DATA** to copy more than one module.
- type **1** and press **NEXT** so that you can copy module *index*.
- type **2** and press **NEXT** so that you can copy module *math*, now asterisks should be next to both modules.

List of Modules
* 1) index
* 2) math
Enter the module number that you want to copy and press NEXT,
Press DATA for more, or Press BACK for other options.
Type numbers like 2,4-6 then press NEXT. SHIFT-NEXT when done.

- Press **SHIFT-NEXT** since all of the modules which you want to copy have an asterisk.
- Choose **1** to use the **same module names** as the other curriculum. The modules will now be copied.
- Press **BACK** and you will be returned to the *Curriculum Editor* display.

Changing the Practice Curriculum

1. Edit a Module

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

- Choose option 1 for **SEE/EDIT** a module
- Enter ***index*** for the module name and then press NEXT.
- You should now be looking at the module display called *index*.

Space left: 166 words or 12 lines
1
2
3 Welcome to NovaNET
4
5
6 If this is your first time on NovaNET, press
7 "a" to learn how to use NovaNET.
8
9 a) How to Use NovaNET
10
11
12 Otherwise, press "b" for an index of Math lessons.
13
14 b) Math Lessons
SHIFT-NEXT to store INDEX module "index".
SHIFT-BACK to exit without storing changes. HELP available.

2. Types of lines
   - There are several different types of lines in a module. Press **DATA** to see what types of lines are used by this module. After you press DATA, you will notice some labels on the right side of the display. Line 9 is labeled "L-introduce" and line 14 is labeled "M-math".

Space left: 166 words or 12 lines
1
2
3 Welcome to NovaNET
4
5
6 If this is your first time on NovaN
7 "a" to learn how to use NovaNET.
8
9 a) How to Use NovaNET L-introduce
10
11
12 Otherwise, press "b" for an index c
13
14 b) Math Lessons M-math
SHIFT-NEXT to store INDEX module "index".
SHIFT-BACK to exit without storing changes. HELP available.

- The **L** indicates that line 9 is a **lesson** line. (If the student chooses a lesson, s/he will be sent off to study a lesson. In other words, if the student presses the "a" from line 9, s/he will study a lesson called "introduce".)
- The **M** indicates that line 14 is a **module** line. (If the student chooses a module, s/he will see another module display. In other words, if the student presses "b" from line 14, s/he will see another module called "math". Module "math" may in turn list more lessons or modules.)
- The other lines are called **text** lines. (The text lines only present information, there is no choice available from the text lines.)

3. Replot display

   Your display looks a little messy now because of the text which shows the types of lines. Press **n** to replot the display. (The letter *n* stands for new display.)

4. Insert new Module lines

Let's assume that you want your students to study English lessons in addition to the Math lessons. You could add a module of English lessons. To add a module line:

- Type **M without pressing NEXT.** (M stands for Module). You will see an M in the top, right corner of the screen.
- Next, type the number of the line which you want to insert after. For example, type **14** to insert after line 14.
- Press **NEXT** since you are ready to insert a new line after line 14.
- You will see an arrow on line 15 where you can enter the following information for the new module.
- In the upper right hand corner, a message tells you to enter the Module name. This is a unique name that you give the new module. The student never sees this name. It is just a way for you to identify your modules. We will identify this new module with the word "english". Enter ***english***, and press NEXT.
- The computer will tell you that the module does not exist. Press **DATA** to create the module.
- Now the message in the upper right corner tells you to enter the Module Title. This is the line that the student sees which describes the module. Enter ***English Lessons*** and press NEXT.
- Press **BACK** when you are done entering the line. Your module should now look like the following display.

Now your students have three options, they can press "a" to see lesson "introduce", they can press "b" to study Math lessons, or they can press "c" to study English lessons.

5. Insert New Text

Let's assume that you want line 12 to say: Otherwise choose a subject area. Since this line does not present any choice to the students, it is a text line. To insert a new line of text:

- Type **I without pressing NEXT.** (I stands for Insert). You will see an I in the top, right corner of the screen.
- Next, type the number of the line which you want to insert after. For example, type **12** to insert after line 12.
- Press **NEXT** since you are ready to insert a new text line after line 12.
- You will see an arrow on line 13 where you can type the text message. Type "Otherwise, choose a subject area." and press NEXT.
- Press **BACK** when you are done entering the line. Module *index* should now have 16 lines.

Space left: 159 words or 10 lines
1
2
3 Welcome to NovaNET
4
5
6 If this is your first time on NovaNET, press
7 "a" to learn how to use NovaNET.
8
9 a) How to Use NovaNET
10
11
12 Otherwise, press "b" for an index of Math lessons.
13 Otherwise, choose a subject area.
14
15 b) Math Lessons
16 c) English Lessons
SHIFT-NEXT to store INDEX module "index".
SHIFT-BACK to exit without storing changes. HELP available.

6. Delete Lines

Now assume that you don't want line 12 which says "Otherwise, press "b" for an index of Math Lessons".

- Type **D** (which stands for Delete). You will see a D in the top, right corner of the screen.
- Next, type the number of the line which you want to delete. For example, type **12** to delete line 12.
- Press **SHIFT-HELP** to delete line 12. (Usually you would press NEXT after typing a line number. But, since deletion is more drastic, you must press SHIFT-HELP as an extra precaution.) The line about pressing "b" should now be deleted and you should now have 15 lines.

7. Store the module

Since you don't have any more changes to make to this module, you can store it. The directions at the bottom of the display indicate that you should press SHIFT-NEXT to store the module. Press **SHIFT-NEXT** now.

8. You created module "english", but it is still empty. So, we should edit module "english". You are now on a display which asks which module you want to edit.
   - Enter ***english*** for the module name and then press NEXT.
   - You should now be looking at an empty module display.

9. Insert new Lessons

To add lesson lines:

- Type **L** (which stands for Lesson). You will see a L in the top, right corner of the screen.
- Next, type the number of the line which you want to insert after. For example, type **0** to insert after line 0.
- Press **NEXT** since you are ready to insert a new line after line 0.
- You will see an arrow on line 1 where you can enter the following information for the new lesson.
- In the upper right hand corner, a message tells you to enter the filename. This is a unique name that the computer uses to identify the lesson. The student never sees this name. We will enter a lesson with the filename "sentences". Enter ***sentences***, and press NEXT.
- Now the message in the upper right corner tells you to enter the File Title. This is the line that the student sees which describes the lesson. Enter ***Make a Sentence*** and press NEXT.
- Press **BACK** when you are done entering the line. Your module should look like this.

Space left: 197 words or 25 lines
1 a) Make a Sentence
SHIFT-NEXT to store INDEX module "index".
SHIFT-BACK to exit without storing changes. HELP available.

You can continue practicing in this curriculum. For example, you may want to add more lessons or text lines to module *english*. (You can find more English lessons by looking in the NovaNET lesson catalog. For information on the NovaNET lesson catalog, see the chapter on "Previewing Lessons" in the first section of this manual.) Remember the following basic editing options.

editing directive	editing mode
I	for Inserting TEXT lines
L	for adding LESSON lines
M	for adding MODULE lines
D	for deleting lines (press SHIFT-HELP)
DATA	to see file and module names
N	to replot display (new display)

10. Store the module

When you are done making changes, you can store the module. The directions at the bottom of the display indicate that you should press SHIFT-NEXT to store the module. Press **SHIFT-NEXT** now.

11. **Return to the *Curriculum Editor* menu display**

Press **BACK** to return to the Curriculum Editor menu display.

12. Specify Initial Module

Before your students can use this curriculum, you must specify the initial module (*index*). You should now be on the main display for the Curriculum Editor.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

Choose option 2 to Specify INITIAL module.

- Type *index*, and then press NEXT. You will then be returned to the *Curriculum Editor* display.

13. Return to *Resources for Instructor* display

Press BACK to leave the Curriculum Editor and return to the *Managing Instruction* display. Press BACK one more time to return to the *Resources for Instructors* display.

14. Study Curriculum

Since this curriculum is just a practice curriculum, we never attached it to a group. Therefore, you can't sign on with a student signon and look at the curriculum. However, you can look at it with your instructor signon by using the Preview a Lesson option. After you choose to Preview a lesson, enter the name of your temporary curriculum.

More Practice

1. *C-router* has a help lesson which will give you more practice with editing a curriculum. This help lesson will take about an hour. When you are ready to try the help lesson, sign on to the computer and:
   - Choose the option to **Preview a lesson** from the *Resources for Instructors* display.
   - Enter *currhelp* and press NEXT.

CHAPTER 4: CUSTOMIZING A CURRICULUM

This chapter assumes that you have been using an existing curriculum (as described in the chapter "Using an Existing Curriculum"). It also assumes that you have completed the chapter "Practice Editing a Curriculum".

As you become more familiar with the existing curriculum, you may want to make some modifications. For example, you may want to re-order some of the displays, or you may want to add or delete lessons. This chapter will describe how to customize an existing curriculum to meet your own needs.

First you must determine which modules you want your students to study. Since you are not allowed to modify someone else's curriculum, you must create your own curriculum. Then you should copy modules from the existing curriculum into your new curriculum. Finally, you may change your own curriculum.

Determine which modules you want your students to study.

- sign on to the computer.
- Choose option **1** for **Group Operations** and press NEXT to work with your own group. This should take you to the *Managing Instruction* display.
- Choose option **1** to **Try Curriculum.** This will take you to the existing curriculum.
- Go to every module display which you want your students to study. Press **SHIFT-DATA** on those displays and write down the **name of the module**. The module name will be on the top line of the module.
- When you have the complete list of module names that you want your students to see, press **SHIFT-ERASE** to leave the curriculum. You should now be on the *Managing Instruction* display.

Creating a Curriculum

You will need to have your account director create a new curriculum file.

1. **Ask your account director to:**
   - create a *C-router* curriculum file
   - set the WRITE records codeword in the curriculum file

   You will need to tell your account director the following information:
   - name for the curriculum file
   - maximum number of modules (or displays) in the curriculum. Since you just generated a list of modules which you want to copy, you should know the number of modules which you want in your curriculum.

   Be sure to remember the name of the curriculum file and the WRITE records codeword. You can write the curriculum name below. If you write down your codeword, be sure to only write it in a place where no one else will see it.

> Curriculum
>
> Curriculum name: _____

2. **Attach the curriculum file to your group:**
   - Choose option **1** for **Group Operations** and press NEXT to work with your own group. This should take you to the *Managing Instruction* display.
   - Press **SHIFT-DATA** for director options.
   - Now, choose option **1** to **Change Associated Files**.
   - Choose **a** to change curriculum file.
   - Type the **name** of the new curriculum file and press NEXT.
   - If you are asked to enter the codeword, enter the **READ records codeword**.
   - You will now be told to press NEXT to destroy the student data. This will destroy all existing scores and other data for the students who have already studied in this group. (If you don't want to destroy the student data, then create a new group and attach this curriculum to that group. See the previous chapters for directions for creating a new group.)
   - Now press **c** since you don't have to change anything else. You should now be on the *Managing Instruction* display.

Copying Modules

1. Choose option **2** to **Change Curriculum MODULES.**
   - Enter the **WRITE records codeword** and press NEXT. You should now be on the *Curriculum Editor* display.
2. Choose option **5** to **COPY a Module.**
   - Enter the name of the **previous curriculum** and then press NEXT. (The previous curriculum was probably either "revcur3" or "elemcur1".)
   - Press **DATA** to copy more than one module.
   - Enter the **name of the first module in alphabetical order** and press NEXT.
   - You will then see a list of 48 modules and each module has a number. Type the **number of a module** which you want to copy to your new curriculum and press NEXT. You will see a asterisk next to the module which you entered. Continue putting asterisks next to every module on this display which you want to copy.
   - When all of the modules on the display that you want to copy have an asterisk, press **SHIFT-NEXT**.
   - Choose **1** to use the **same module names** as the other curriculum. *C-router* will start to copy the modules and then you will be returned to the Copy a Module display.
   - If you haven't copied all of the modules, continue doing step 2 until you have copied all of the modules that you want in your curriculum.
3. Choose option **2** to Specify INITIAL module.
   - Type the **name of the first module** which you want your students to see, and then press NEXT. You should now be on the *Curriculum Editor* display.

Changing Your Curriculum

You are now ready to change the curriculum to fit your specific needs.

1. Choose option **1** to SEE/EDIT a module.
   - Type the **name of the module** which you want you want to change and press NEXT.
2. Use the editing directives to change your module. For example:

editing directive	editing mode
I	for Inserting TEXT lines
L	for adding LESSON lines
M	for adding MODULE lines
D	for deleting lines (press SHIFT-HELP)
DATA	to see file and module names
N	to replot the display (new display)

You can find more information either by pressing HELP or by looking in the section of this manual titled "Advanced: Building Curricula".

Section C

Advanced:

Managing

Signons

CHAPTER 1: CREATING YOUR FILES

The following files must be created before you can use a *C-router* group.

Group (required)
Curriculum File (required)
Student Data File (optional)

This chapter describes the purpose of each file and how to create the files.

CREATING YOUR GROUP

All NovaNET users have a signon which includes a name and a group. The signon identifies themselves to the computer. All signons belong to a group.

A group should contain users who all use the computer for the same purpose. For example: you may have one group for students and instructors in a first year Spanish class and another group for students and instructors in second year Spanish class.

It is often more useful to have many small groups rather than fewer larger groups. This is because managing instruction is easier if an instructor has to look at student data for a smaller group of students.

Since it is often more useful to have smaller computer groups, one student may have more than one computer signon. For example, one student may be registered in both a Spanish group and a Math group.

One person is assigned to be the director of each group. The group director establishes codewords which protect the group, and the group director may share these codewords with other responsible users if s/he chooses. Since the information in a group (or any other computer file) can be very private and very important, it is necessary to be very selective and careful about distributing codewords.

The group director is responsible for the behavior of members of the group. The group director must be sure that the members of his/her group know how to sign on, know where to get copies of manuals, know how to use the on-line resources, and understand the rules and courtesies of computer use. To use *C-router*, you must create a **group**. To create a group:

1. Ask your account director to **create a *C-router* group** for you.

   If you do not know who your account director is, ask the person who gave you your signon.

   You will need to tell your account director:

   a. the **maximum number of students** who will be enrolled in your group

   b. a **name** for your group.

   c. a **READ** records codeword (A codeword for users who are allowed to look at the group but not allowed to change the group.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword. The account director should set this codeword after creating the file.

   d. a **WRITE** records codeword (A codeword for users who are allowed to change the group.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword. The account director should set this codeword after creating the file.

   e. The number of **data signons** in the group will usually be 2. For users using either customized initial module/lesson lists or access lists, the number of data signons will be 2 plus the number of students who will have customized initial modules or lessons plus the number of groups (other than this group) which will have access specified in the access list.. (See the chapter of this manual called "See/Add/Change Signons" for more information about customized initial modules and lessons. For more information on Access Lists, see the chapter called "Director Options".) Most *C-router* groups will use only 2 data signons.

   f. You will also need to give the number of **data records and messages**. For *C-router* groups, the number of data records is the same as the number of data signons. The number of messages is the total number of signon messages that you plan to write. For example, sending one message to all instructors of a group counts as one message. Sending 5 different messages to 5 individual

signons, counts as 5 messages. Let's assume that you plan to send one message to all multiples, one message to all instructors and about 10 individual messages. That would be a total number of 12 messages. The number that you would enter would be 12 plus the number of data signons.

Your account director should be sure to create a "*C-router* group" as opposed to a normal group. (If you have already created a normal group, then use the information in the Appendix C of this document to set up this normal group so that it can operate as a "*C-router* group".)

C-router groups can be short record groups. Short record groups take up less disk space. But, if a student in a short record group leaves a lesson in the middle, the student will not be able to restart the lesson where s/he left off. In other words, restart information is not saved for short record groups. Short record groups can be used to save disk space for groups which use multiple signons instead of student signons or for groups where being able to restart in the middle of the lessons isn't important.

2. If you do not already have a signon, ask your account director to create an instructor signon in the group for you to use.

CREATING YOUR CURRICULUM FILE

Every *C-router* group must have a curriculum file. The curriculum file contains the list of lessons that you want your students to study. If you want to use a curriculum file that already exists, don't create this file.

To create a curriculum file:

1. Determine the **maximum number of modules** (or displays).

   To determine this number, use the chapter of this manual "Structure of Curriculum".

2. Ask your account director to **create a *C-router* curriculum file** and set some codewords for that file.

   You will need to tell your account director:

   a. The **name of your group**. Your curriculum file will be called "c1groupname". For example, if your group name is "french", your curriculum file will be "c1french". (If you prefer, you can select an arbitrary name for your curriculum file.)

   b. The maximum **number of modules** (or displays).

   c. A **READ records codeword** (A codeword for users who can use your curriculum but who cannot change your curriculum.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword. The account director should set this codeword after creating the file. If you want to allow other users to use (but not change) your curriculum, you may leave this codeword blank.

   d. A **WRITE records codeword** (A codeword for users who can change your curriculum.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword. The account director should set this codeword after creating the file.

If your curriculum file fills up, you may have your account director lengthen it at any time.

A *C-router* curriculum file is really a file type called a nameset. However, it is simpler to have your account director create a ***C-router* curriculum file** as opposed to a nameset. If you have already created a nameset, you can use the information in Appendix C of this manual to set up the nameset so that it can be used as a *C-router* curriculum file.

CREATING YOUR STUDENT DATA FILE

The student data file is the file where a student's performance data is saved. (Student performance data includes scores on lessons, times in lessons, lesson completed information, etc.) If you want student performance data saved, then you must have a student data file. If you do not want to save student performance data, then it is not necessary to create a student data file.

It is best to use one student data file for each group. However, it is possible to share one student data file among several different groups, as long as each group also uses the same curriculum. Although this is possible, it is not encouraged because sharing a student data file among several groups will make it more difficult to look at student data for just one group of students.

To create a student data file:

1. Determine the **maximum number of students.**
2. Determine the **average number of lessons** that each student will study.
3. Ask your account director to **create a *C-router* student data file** and set some codewords for that file.

   You will need to tell your account director:

   a. The **name of your group.** Your student data file will be called "d1groupname". For example, if your group name is "french", your student data file will be "d1french". (If you prefer, you can select an arbitrary name for your student data file.)

   b. The maximum number of students.

   c. The average number of lessons that each student will study.

   d. A **READ records codeword** (A codeword for users who can look at your student data but who cannot change your student data.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

   e. A **WRITE records codeword** (A codeword for users who can change your student data.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

You will receive warnings in your student notes file when the student data file becomes 80% full, 90% full, and 100% full. If you see those warnings, you can ask your account director to lengthen the student data file. (More information about student notes files is included in another chapter of this manual.)

A *C-router* student data file is really a file type called a nameset. However, it is simpler to have your account director create a ***C-router*** **student data file** as opposed to a nameset. If you have already created a nameset, you can use the information in Appendix C of this manual to set up the nameset so that it can be used as a *C-router* student data file.

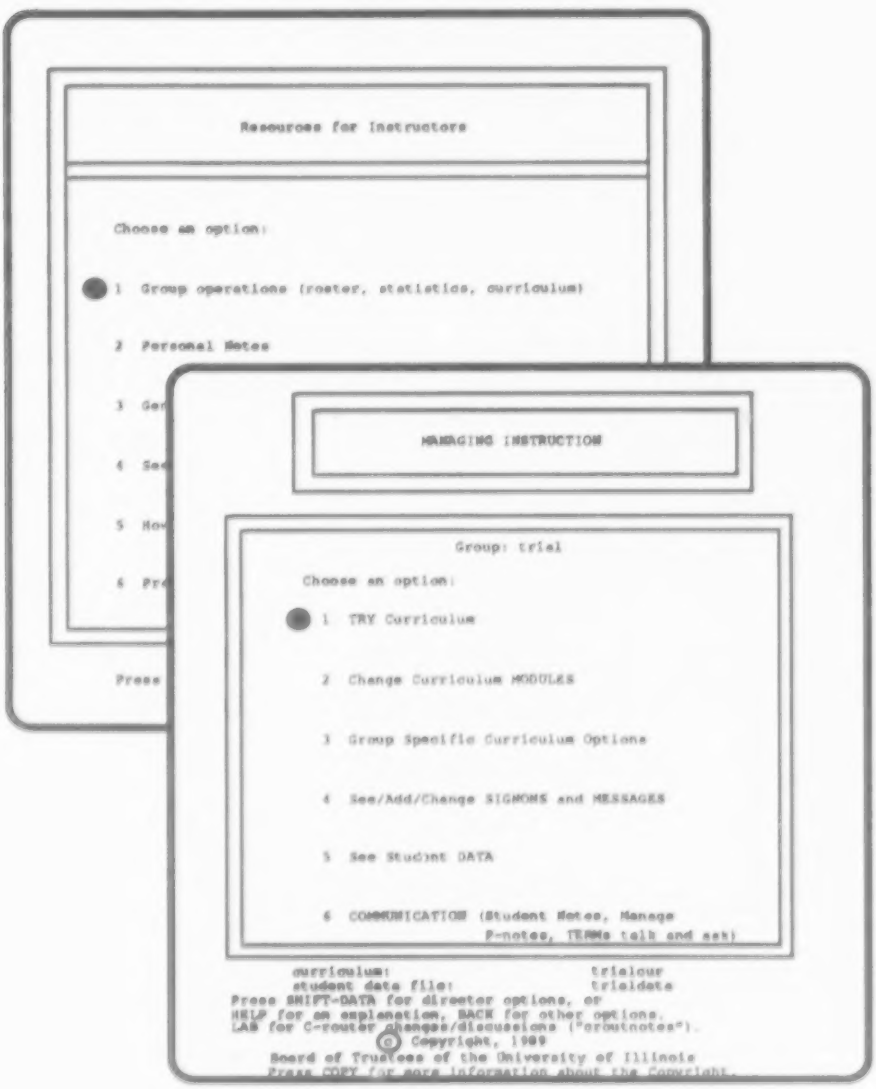
Chapter 2: Try Curriculum

Curriculum associated with group

This chapter describes how you can try the curriculum which is associated with your group. (The end of this chapter describes how to try a curriculum which is not associated with your group.) Your group and curriculum must be created before you can use this option. To create a group, see the chapter of this manual titled "Creating Your Files". To create a new curriculum, see the section of this manual titled "Advanced: Building Curricula".

Instructors can enter their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **1 (Try Curriculum)** to try the curriculum.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("crnutnotes").
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The "Try Curriculum" option allows you to look at the modules that the students see. You can then study any of the lessons in the curriculum or branch around to other modules. To leave the curriculum and return to the normal instructor options, press SHIFT-ERASE. (Use SHIFT-ERASE instead of SHIFT-STOP because SHIFT-STOP will sign you completely off of the computer.)

Curriculum not associated with group

Some *C-router* users are willing to share the *C-router* curricula which they have created. These *C-router* curricula are listed in the NovaNET lesson catalog. Instructors can get to the NovaNET lesson catalog by following the directions given in the chapter titled "Previewing Lessons". Authors can get to the NovaNET lesson catalog by typing SHIFT-C on the *AUTHOR MODE* display.

When in the catalog, choose to search by subject and use *Curriculum Management (NovaNET)* for the subject. The list under this subject heading includes *C-router* curricula.

There are several ways for you to look at these curricula:

- from the NovaNET lesson catalog, press LAB when looking at the basic catalog entry
- for instructors, choose to *Preview a Lesson* and type the curriculum name
- for authors, type the curriculum name on the *AUTHOR MODE* display.

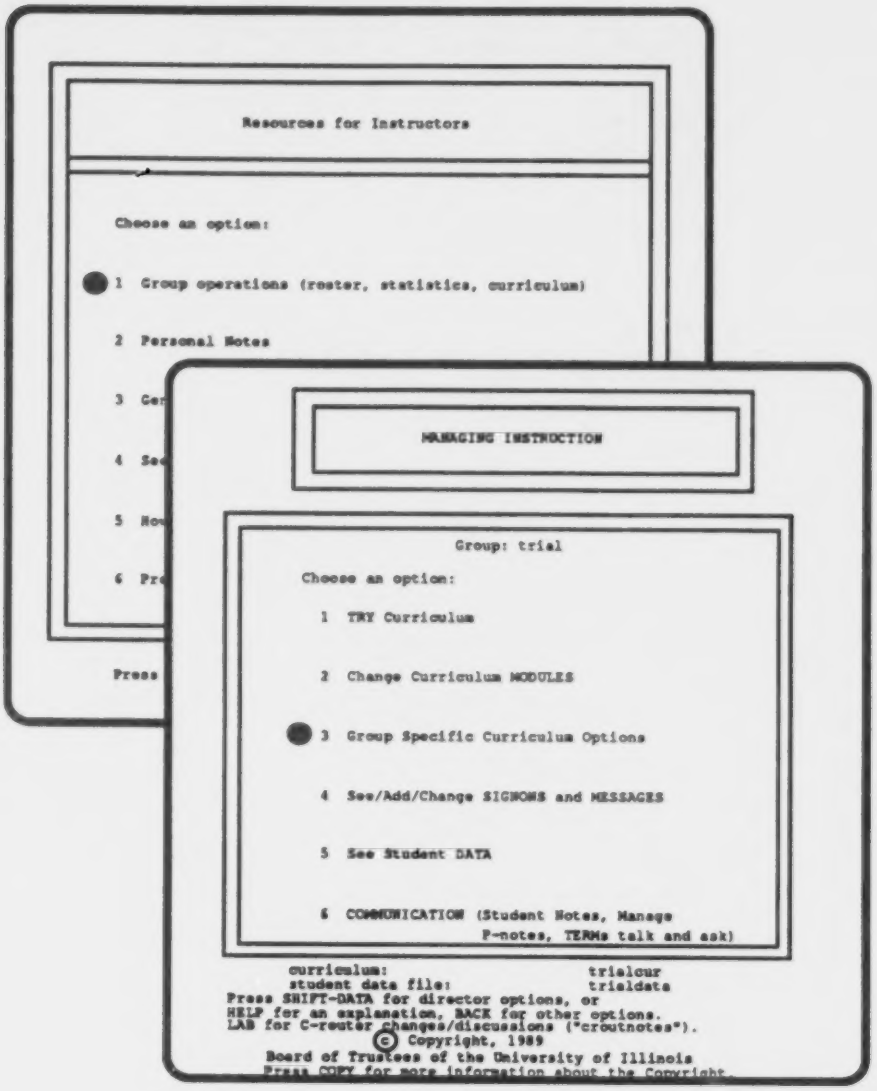
To use one of these curricula in your own group, see the section of this manual titled "Getting Started (A Step-by-step approach)".

CHAPTER 3: GROUP-SPECIFIC CURRICULUM OPTIONS

Group-Specific curriculum options allow you to set options which pertain only to your group. These options are useful if you are sharing a curriculum among several groups. Your group must be created and all connections made before you specify group-specific curriculum options. To create a group and make the connections, see the chapter of this manual titled "Creating Your Files".

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **3 (Group-Specific Curriculum Options)** to set some information specific for your group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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There are four group-specific curriculum options:

1) Initial Module

The initial module option allows you to specify a module that students in this group will enter the first time they sign on. This setting overrides the initial module in the curriculum. This is useful if you want to share one curriculum between several different groups with each group starting with a different module. The Individual Initial Module or Customized Initial Module (which are set in the student record) both override this setting. More information is available in the chapter of this manual titled "Which module will the student see when s/he signs on?".

2) Start every session with Initial Module

Normally, when the student signs on, the student returns to the last module s/he saw. However, if you choose this option, the students will start every session with the Initial Module. If you choose to start every session with the initial module and later decide to resume starting each session with the last module, you can choose this option again to return to the normal situation. More information is available in the chapter of this manual titled "Which module will the student see when s/he signs on?".

3) Initial Lesson

This option allows you to specify a lesson that students in this group will enter every time they sign on. When the students complete this lesson (by executing a -lesson completed-), they will be sent to the current module. If the students leave the initial lesson without completing it (without executing a -lesson completed-), then the students will be signed off the computer.

If the initial lesson exists in the curriculum, student data will be saved for the lesson. If the initial lesson does not exist in the curriculum, student data will not be saved.

4) Exit Lesson

When the students leave a lesson, they will execute the exit lesson before returning to the router. If the student completes the exit lesson (executes a -lesson completed-), s/he will be sent to the current module. If the student doesn't complete the exit lesson (doesn't execute a -lesson completed-), the student will be signed off of the computer. Student data is not saved for the exit lesson.

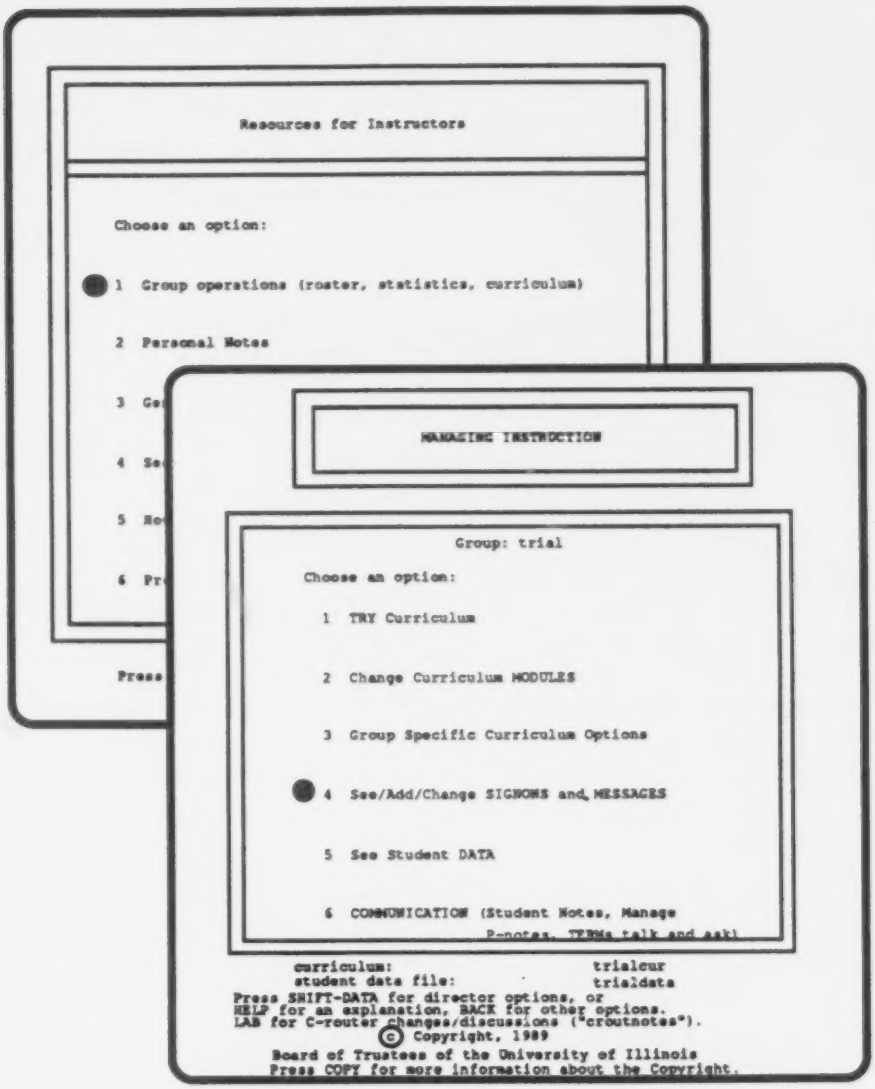
CHAPTER 4: SEE/ADD/CHANGE SIGNONS

ADD SIGNONS

This option allows you to create new signons. Your group must be created and all of the connections made before you can add signons. To create a group and make the connections, see the chapter of this manual titled "Creating Your Files".

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **4 (See/Add/Change SIGNONS)** to add signons to the group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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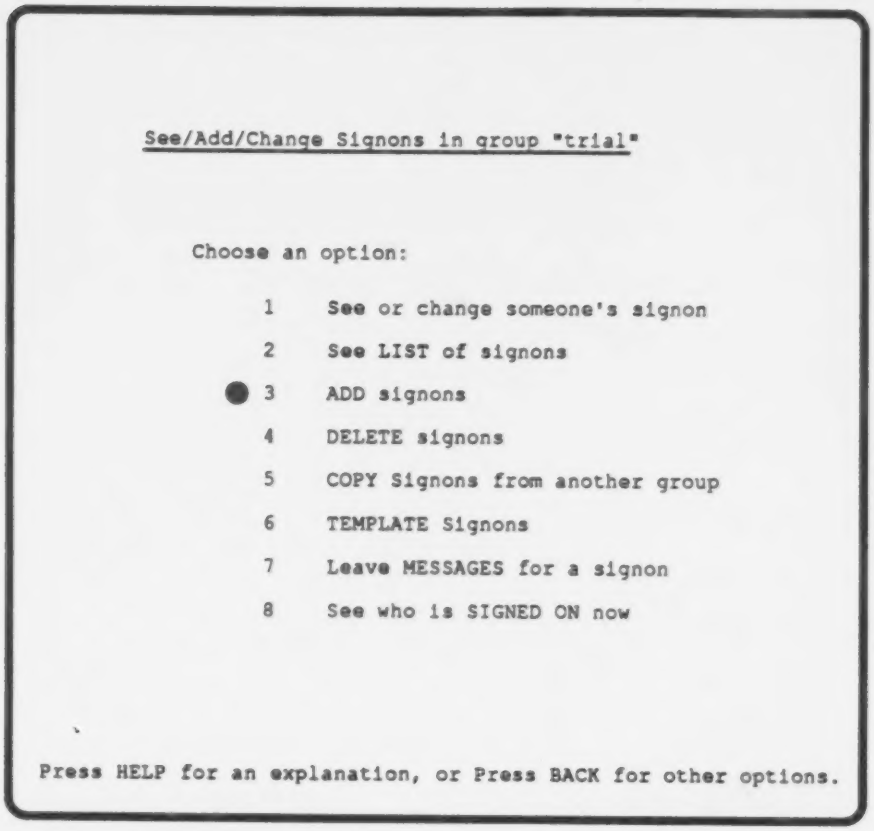
The following display is the next index seen by both authors and instructors. Choose option 3 (ADD Signons) to add signons to your group.


See/Add/Change Signons in group "trial"
Choose an option:
1 See or change someone's signon
2 See LIST of signons
3 ADD signons
4 DELETE signons
5 COPY Signons from another group
6 TEMPLATE Signons
7 Leave MESSAGES for a signon
8 See who is SIGNED ON now
Press HELP for an explanation, or Press BACK for other options.

When you add a signon, you will have to choose a type of user. A group may contain four different types of computer users:

1) students

Students study lessons which have been assigned by their instructors. Data about the student's progress is saved and includes: lesson score, time in lesson, lesson completion, number of times in lesson, and last date in a lesson.

2) multiples

Multiples are like students except that more than one person can use the signon at the same time and data about progress is not saved.

3) instructors

All instructors (unless their access to the group is none) can try out the curriculum in their own group as a student would see it. (An instructor's "own" group is the group in which his/her current signon was created. Instructors have special privileges in their own group, but do not have such privileges in other groups). Whether the instructor can do management options (such as adding signons and seeing student performance data) depends on the what type of access the instructor receives. More information about types of access for instructors is provided on the following pages under "Change Existing Signons".

4) authors

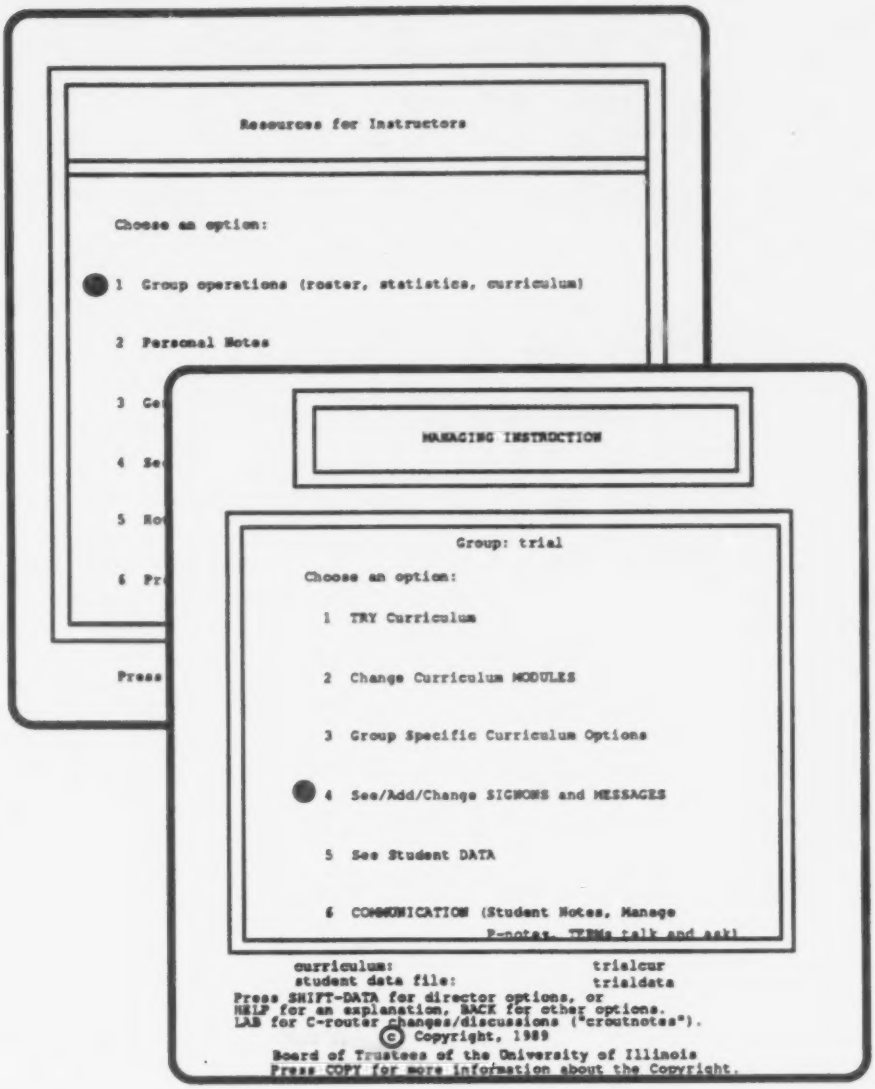
All authors (unless their access to the group is none) can try out the curriculum in their own group as a student would see it. (An author's "own" group is the group in which his/her current signon was created.) Authors must provide codewords before receiving access to the group. Whether the author can do management options (such as adding signons and seeing student performance data) depends on the what type of access the author receives. More information about types of access for authors is provided on the following pages under "Change Existing Signons". In addition, an author can program lessons. Some groups don't allow author signons. Your account director can change your group to allow or not allow author signons.

CHANGE EXISTING SIGNONS

This option allows you to change information which is associated with an existing signon.

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option 4 (See/Add/Change SIGNONS) to see information about a signon.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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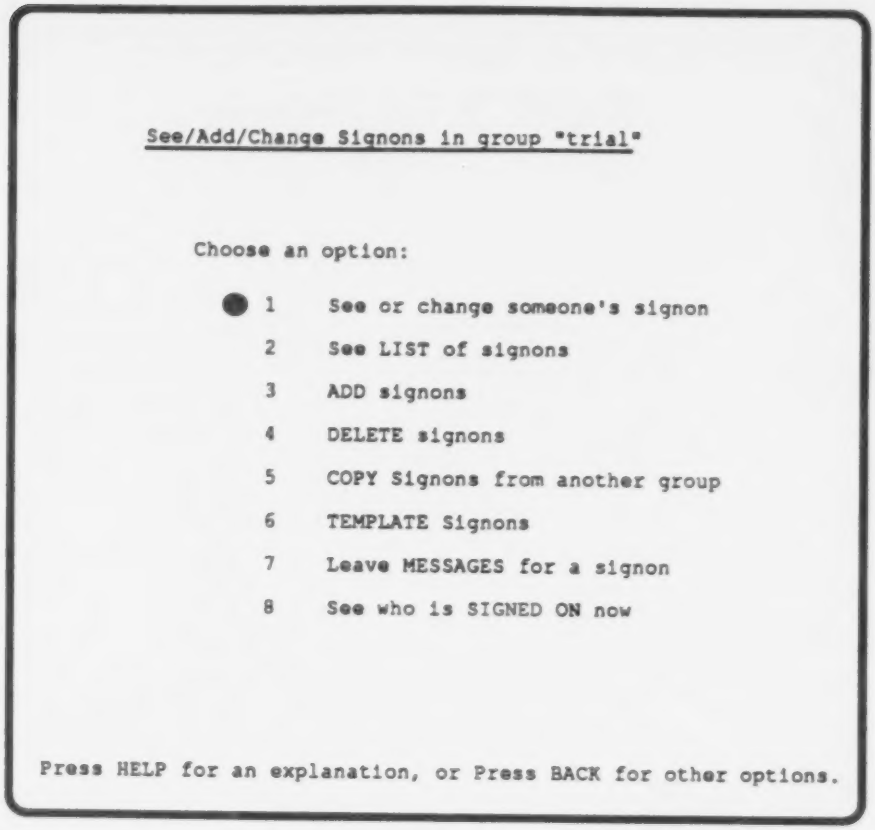
Next, choose option **1 (See or change someone's signon).**


See/Add/Change Signons in group "trial"
Choose an option:
1 See or change someone's signon
2 See LIST of signons
3 ADD signons
4 DELETE signons
5 COPY Signons from another group
6 TEMPLATE Signons
7 Leave MESSAGES for a signon
8 See who is SIGNED ON now
Press HELP for an explanation, or Press BACK for other options.

STUDENT SIGNONS

The following display shows the signon record for a student named Paula.

```
"paula"  (student)                                  lesson:  introducec
                                                      unit:  restart

Created:  11/3/86
Last on:  Date:  12/18/86   time:  14:42   station:  17-24
Time on:  hours:  2.3   days:  1   sessions:  6
Resources:  CPU usage (TIPS)  7.3  | Disk accesses (DARM)  5.9
Signon password:  XXXXXXXXXX


  Choose an option:

       1  change PASSWORD

       2  change spelling of NAME

       3  leave a MESSAGE

       4  curriculum STATUS (lesson completed, etc.)

       5  see/change CURRENT module

       6  see/change INITIAL ENTRY Options

     Press SHIFT-HELP for:  delete, turn-off

     Press SHIFT-NEXT for next person in roster
           SHIFT-BACK for previous person in roster
                 BACK for other options
```

Lesson/unit

The top right section of the record for Paula shows that the last lesson that she was studying was lesson "introducec", and the unit was "restart".

Signon Statistics

The box at the top of the display shows various statistics about the signon including: the date that the signon was created, when and where she was last signed on, how many hours, days, and sessions she has been on the computer, the processing time (CPU usage) that she has used, and the disk accesses that she has used per minute.

Password

The X's by the signon password indicate that she has been assigned or has chosen a password. You can use option 1 to change her password or set it so that no password is required.

Spelling

Option 2 (Change spelling of NAME) allows you to change her name without losing her statistics and progress data.

Message

Option 3 (leave a MESSAGE) allows you to send a message that Paula will see the next time she signs on.

Curriculum Status

Option 4 (curriculum STATUS) allows you to see her performance data. See the chapter of this manual titled "See Student Data" for more information.

See/change Current Module

Option 5 (see/change current MODULE) allows you to see which module Paula is currently working on and to change that module if you desire. (If you elect to start every session with the initial module under Group-Specific Curriculum options, then the student will see the initial module rather than the current module when s/he signs on.)

See/change Initial Entry Options

You can select one of the following three initial entry options which will override both the initial module for the curriculum and the initial module in group-specific curriculum options. You may select only one of the following three options for each student.

1) Initial Module

You can set a student's Individualized Initial module with this option. This module will specify which module the student will see when s/he first signs on. This setting will override the setting for the curriculum's initial module and the setting for the Group-Specific Initial module.

If the student has already signed on, s/he will be returned to his/her last (or current) module instead of the initial module. If you want the student to always start with the initial module, select the option Start every session with Initial Module under the Group-Specific Curriculum Options.

2) Customized Module List

It is possible for each student to study a different set of modules. This is done with customized module lists.

For example, one student's customized list may contain two modules: english level 1 and math level 2. Another student's customized list may contain three modules: english level 2, math level 3, and physical science level 1. If the first student chooses to study English, s/he will be branched to the module english level 1. The english level 1 module may in turn branch the student to many different English modules.

A customized module list contains up to 25 modules for a student to study. The 25 modules in this list can reference other modules, so a student with a customized module list can access many modules. The student sees the customized list each time s/he signs on.

You can choose the module to be included in the customized list from the complete list of modules. Type the number of the module which you would like to include in the customized list. The module number which was typed first will be displayed first on the student's customized list.

When the student signs on, s/he will see the words: Choose an Assignment, followed by the module names which the instructor has chosen. Since the module names are displayed to the student, the curriculum designer should use meaningful module names. Module names can be 20 characters long, can't include upper-case letters, and must begin with a letter.

NOTE: The student will see the customized list each time s/he signs on. The student is not automatically returned to the last module s/he saw.

An exercise for Customized Module Lists is included at the end of this chapter.

3) Customized Lesson list

It is possible to have each student study a different set of lessons. This can be done with customized lesson lists.

A customized lesson list contains up to 5 lessons for a student to study. The student sees the customized list each time s/he signs on and can study any of the lessons in the customized lesson list. All lessons in the customized lesson list must also exist in the curriculum catalog. Student data is saved for these lessons.

If the customized lesson list contains only one lesson, the student will be branched immediately to the lesson when s/he signs on. When the student completes the single lesson, s/he will be branched to his/her current module (or initial module if the group-specific curriculum options indicate that the student should start every session with the initial module).

If the customized lesson list contains more than one lesson, the student can choose to study any of the lessons. When multiple lessons are included in the customized lesson list, the student will never go to any of the modules in the curriculum.

When building a customized lesson list, you will be asked to provide the filename. After pressing NEXT, you will then be asked to give a file title. If the list contains more than one lesson, the file titles will be displayed to the student.

NOTES:

The student will see the customized list each time s/he signs on. The student is not automatically returned to the last module s/he saw.

The filename in customized lists can't pass arguments and can't specify a unit name.

Delete or Turn-off

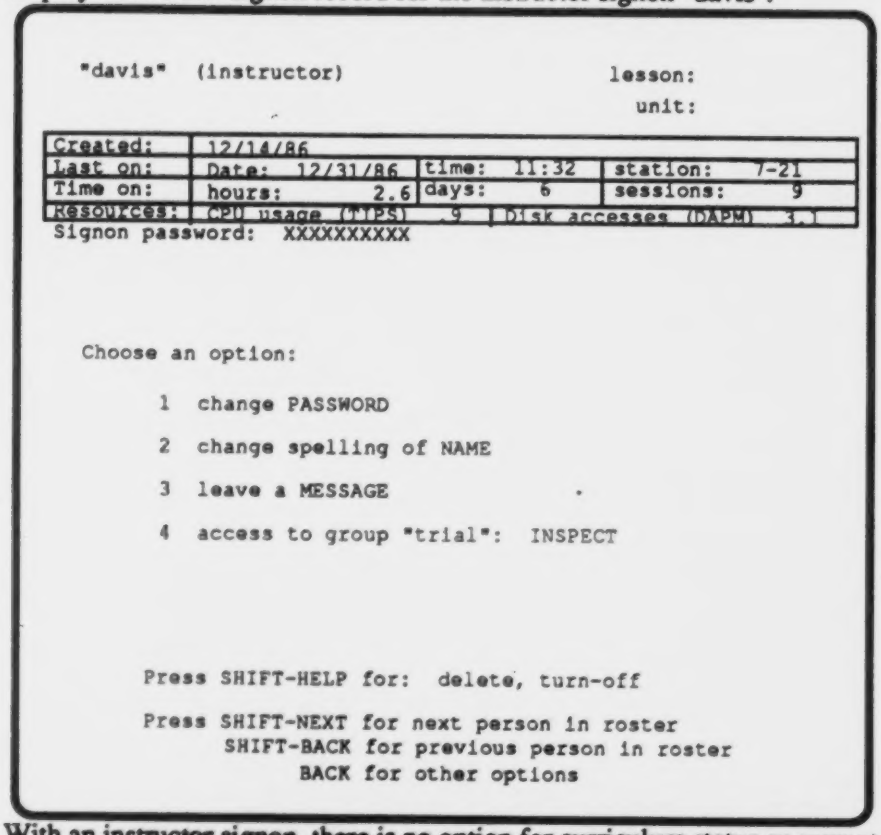
Press SHIFT-HELP to delete Paula's signon or to turn her signon off so that she will see only her message and not be able to work. You can delete the student from just the group (delete signon but don't delete student performance data), you can delete the student from just the student data file (delete only the performance record but don't delete the signon), or you can delete from both the group and the student data file. Usually you will delete students from both the group and the student data file at the same time. But, you can change this so that you will delete either from the group only or from the student data file only by pressing LAB.)

MULTIPLE SIGNONS

The signon records for multiples have only 3 options, change password, change spelling of name, and leave a message. If the password for a multiple is left BLANK, the person using the signon won't be asked to provide a password when signing on. It is often easier to share a multiple signon among a lot of people if the password is BLANK. However, if more privacy or security is desired, a password can be specified for the multiple signon.

INSTRUCTOR SIGNONS

The signon record for an instructor is slightly different. The following display shows the signon record for the instructor signon "davis".


"davis" (instructor)
lesson:
unit:
Created: 12/14/86
Last on: Date: 12/31/86 time: 11:32 station: 7-21
Time on: hours: 2.6 days: 6 sessions: 9
Resources: CPU usage (TIPS) .9 Disk accesses (DAPM) 3.1
Signon password: XXXXXXXXXX
Choose an option:
1 change PASSWORD
2 change spelling of NAME
3 leave a MESSAGE
4 access to group "trial": INSPECT
Press SHIFT-HELP for: delete, turn-off
Press SHIFT-NEXT for next person in roster
SHIFT-BACK for previous person in roster
BACK for other options

With an instructor signon, there is no option for curriculum status or current module. There is another option, option 4, which specifies what type of access the instructor has to his/her own group. An instructor can access his/her own group in one of five ways:

- **Inspect (no codewords)** -- The instructor can see all of the information in the group but cannot change anything. (This is the default.) The instructor does not need to enter a codeword.
- **Edit (no codewords)** -- The instructor can change **ALL** of the information in the group. The instructor does not need to enter a codeword.

- **None** -- The instructor is not permitted to see or change anything in the group.
- **Special** -- Allows you to turn off or on different functions for the instructor. You should use Special access only if none of the above access types apply. A reason for using Special access would be if you want your instructors to be able to add signons, but you don't want them to be able to delete signons. The instructor does not need to enter a codeword. Special access is explained in more detail below.
- **By Codeword** -- The instructor must specify either the WRITE records codeword in order to get edit access, or the READ records codeword in order to get inspect access.

If you choose Special access, you will see the following table.

```
Options for Instructor: davis

| A | Instructor Resources          | B | Signons
|---|-------------------------------|---|-----------------
| N | 1. personal notes             | N | 5. add students
| N | 2. general notes              | N | 6. add multiples
| N | 3. see user list              | N | 7. add instructors
| N | 4. preview lessons            | N | 8. add authors
                                    | N | 9. delete signons
                                    | N | 10. copy signons

| C | Individual Records            | D | Currently signed on
|---|-------------------------------|---|-----------------
| N | 11. change password           | N | 17. send a message
| N | 12. change spelling           | N | 18. sign off
| N | 13. leave a message
| N | 14. change current module
| N | 15. change inst/author options
| N | 16. turn off signon

| E | Student Data                  | N | 22. director options
|---|-------------------------------|---|-----------------
| N | 19. see data
| N | 20. change data
| N | 21. change grading

                                    Type the option number
                                    that you want to change:
                                    >

Or, type a letter a - e to change a section,
    type "y" to set all options to "yes",
    type "n" to set all options to "no".
    Press HELP for help, BACK when done.
```

This table shows 22 options which can be turned on or off for the instructor. If an option has an N, then the option is turned off. If the option has a Y, then the option is turned on. To change an option, type the number of the option and then press NEXT. If the option is set to Y (yes), then typing the number will change it to N (no). Likewise, if the option is set to N, typing the number will change it to Y.

The options are divided into 5 sections (A,B,C,D,E). If you type a section letter, all of the options in that section will be changed.

You can also set all of the options in all of the sections to Y by typing **y**, or you can set all of the options in all of the sections to N by typing **n**.

These special options pertain only to the instructor's own group. The special options are not in effect for other groups which the instructor may edit. In order to access other groups, the instructor must either know the codewords or be listed in the access list for the other groups.

AUTHOR SIGNONS

An author signon record looks similar to an instructor signon except that the default type of access is "By Codeword".

The options in section A (personal notes, general notes, see user list, and preview lessons) do not pertain to author signons.

The access options pertain only to the author's own group. These options do not pertain to other groups which the author may access. In order to access other groups, the author must either know the codewords or be listed in the access list for the other groups.

TEMPLATE SIGNONS

If you want all signons of a particular type (for example: all student signons) to share something in common, you can use templating. For example: if you want all students to have the same current module, you can do this by setting the current module for one signon (the template signon) and then templating it to the other signons. This saves you from having to set the current module for every student in the group.

For students, you can template:

- Password
- Current Module
- Initial Entry Options

For all other types of users, you can only template the password.

NOTE: Typeable passwords can not be templated. If you attempt to template a typeable password, no change will be made to the passwords.

For students and multiples, the password will be templated if it is set to Blank or None Required.

For instructors and authors, the password will be templated if it is set to Blank.

EXAMPLE:

To template student signons:

1. **Create a student signon** which will never be used. Call it something like *stemplate* for student template.
2. Choose to **See or change the signon.**
3. Press **SHIFT-HELP** and **turn the signon off** so that it will never be used.
4. **Set the conditions** which you want to have templated. For example, if you want all the signons to have the same current module, then set the current module in this signon.
5. Choose **Template** from *See/Add/Change Signons* display.
6. Specify:
    - type of signon to template,
    - name of newly created template signon,
    - options that you want to template,
    - whether current signons should be changed, and
    - whether future signons should be changed.

NOTE: If you want to template another type of signon, you will have to repeat the above process for the other type of signon. So, you could have as many as four templates in your group: one for students, one for multiples, one for instructors, and one for authors.

SUMMARY OF SEE/ADD/CHANGE SIGNONS

The following display is the *See/Add/Change Signons* display.

```
See/Add/Change Signons in group "trial"

Choose an option:

     1    See or change someone's signon
     2    See LIST of signons
     3    ADD signons
     4    DELETE signons
     5    COPY Signons from another group
     6    TEMPLATE Signons
     7    Leave MESSAGES for a signon
     8    See who is SIGNED ON now

Press HELP for an explanation, or Press BACK for other options.
```

The options available from the previous display are:

See or change someone's signon

This option allows you to see information about the user, change the user's password, change the spelling of the user's name, leave a message for the user, see the student's data, allow or not allow instructors to edit their own group, and delete or turn-off the signon.

See LIST of signons

This option provides a list of users in the group. A symbol after each name indicates the type of user, "s" = student, "m" = multiple, "i" = instructor, and "a" = author.

ADD signons

You will need to specify a type of user. The preceding pages in this manual describe the user types.

DELETE signons

This allows you to delete signons from the group.

To delete a group of signons (for example to delete all student signons), press SHIFT-NEXT.

Press DATA if you want to see a list of signons.

A student or instructor signon may have an entry in two different files. The entry in the group lets the user sign on and contains information like the user's password and the amount of time on the system. The student data file contains information like scores for lessons. The information in the student data file is saved only for student and instructor signons.

The default when deleting signons is to assume that you want to delete from both the group and the student data file. However, you can specify to delete from only one file by pressing LAB.

You can delete the signon from just the group (delete signon but don't delete student performance data). You might do this if you don't want the user to sign on anymore, but you want to save the student data for later reference.

You can delete the signon from just the student data file (delete only the performance record but don't delete the signon). You might do this at the end of a semester when the student will continue to use the computer the next semester but you don't want the student data for the next semester to reflect work done during the past semester.

Finally, you can delete from both the group and the student data file. This is the default situation.

An exercise for deleting signons is included at the end of this chapter.

COPY Signons from another group

This option allows you to move signons from one group to another group. You can also choose to delete the signons from the old group. (If you choose to delete signons from the old group, the signons will exist only in the new group. If you choose not to delete signons from the old group, the signon will exist in both the old and new groups.) If the curriculum files for the two groups are the same, you will be asked if you want to move the student data to the new group and if you want to destroy the student data in the old group.

Template signons

Templating allows you to specify that all signons of a particular type have something in common. For example, you can say that all students should have the same current module.

Leave a MESSAGE for someone

You can leave up to 3 different types of messages which will be seen when the user signs on:

1) a message for an individual user,
2) a message for all users of a certain type (students, multiples, etc.),
3) a message to be seen by all users.

Therefore, any user can see up to 3 different messages. The messages are shown immediately after signing on. The messages to an individual user are deleted once they have been read. The other types of messages are not automatically deleted.

See who is SIGNED on now

You can see who is signed on in your group and what they are doing. You can also:

- send users a message at the bottom of their screen
- monitor users (if you monitor a student, you can see what is on the student's screen and you can type messages to the student) You will not see the student's display until the student's terminal plots a new display. Anything you type will be sent to the bottom of the student's display. The student can send a message to you by pressing TERM (that's a SHIFTed key) and typing the message. To stop monitoring a student, press SHIFT-BACK.
- sign users off of the computer.

EXERCISE FOR CUSTOMIZED MODULE LISTS

To set a customized Module List:

- Choose to See/Add/Change Signons.
- Choose to See or change someone's signon.
- Enter the name of the student signon.
- Choose option 6 to see/change INITIAL Entry Option.
- Choose option B for Customized Module List.
- Finally, select the modules which you would like to have included.

EXERCISE:

- Attach the curriculum "c1croutcus" to a group.
  To do this, press SHIFT-DATA on the *Managing Instruction* display and choose to change associated files.

- Create a signon called "all".
- Set the customized module list for "all" to module "account" and module "algebra".

- Create another signon called "account 1 and 2"
- Set the customized module list for "account 1 and 2" to modules "account1" and "account2".

- Sign on with the signon "all"
  Module "account" lists all of the account modules, and module "algebra" lists all of the algebra modules. Therefore, this user should be able to see all of the accounting modules and all of the algebra modules.

- Sign on with the signon "account 1 and 2"
  This user should only be able to see only modules "account1" and "account2" since these modules don't reference any other modules.

EXERCISE FOR DELETING SIGNONS

Enter a group which has a student data file attached and create 3 student signons. The three signons should be called: "a both", "a data only", and "a group only".

Check and make sure that the three signons exist in both the group and the student data file.

To see if they exist in the group:

- Choose to See/Add/Change Signons
- Choose to see a list of signons
- Make sure that the three signons are in that list for the group.

To see if they exist in the student data file:

- Choose to See Student Data
- Choose to See Data for One Student
- Press DATA for a list of signons and make sure that the three signons exist in that list for the student data file.

Now, return to the See/Add/Change Signons options and choose to delete signons.

- Delete "a both" from both the group and the student data file.
- Delete "a data only" from only the student data file.
- Delete "a group only" from only the group.

Now, check to make sure that you deleted the signons from the right files.

To check to see which signons exist in the group:

- Choose to See/Add/Change Signons
- Choose to see a list of signons
- The signon "a data only" should be in this list. The signons "a group only" and "a both" should not be in this list.

To check to see which signons exist in the student data file:

- Choose to See Student Data
- Choose to See Data for One Student
- Press DATA for a list of signons. The signon "a group only" should be in this list. The signons "a data only" and "a both" should not be in this list.

CHAPTER 5: WHICH MODULE WILL THE STUDENT SEE WHEN S/HE SIGNS ON?

There are two types of modules that a student can see when s/he first signs on. S/he can be shown either the **current module** (type a) or one of the **initial modules** (type b).

Type A: **current module**

the student's **current module** (This is the last module that the student saw when s/he was signed on. If the student has not signed on yet, this module will be blank. You can change the current module under the options to See/Add/Change Signons.)

Type B: **initial module**

1) the **curriculum initial module** (This is set in the curriculum editor.)
2) the **group-specific initial module** (This is set under Group-Specific Curriculum Options and overrides the curriculum initial module.)
3) the **student's initial module** (This is set by choosing See/Add/Change Signons and then choosing Initial Entry Options. This overrides the group-specific initial module and the curriculum initial module.)

At least one of the modules in type B must be set, but all three do not have to be set. The student initial module overrides both the group-specific initial module and the curriculum initial module. And, the group-specific module overrides the curriculum initial module.

Starting module

The starting module determines whether the student will see the current module (type A) or the initial module (type B) when s/he signs on.

start each session with current module (This is the default and can be changed under Group-Specific Curriculum Options.)
start each session with initial module (You can choose this instead of *start each session with current module*. This can be set under Group-Specific Curriculum Options.)

The following chart summarizes which module the student will see given different conditions. This chart can be confusing, so each case is described in detail.

	#1	#2	#3	#4	#5	#6
student current module	current	current	current			
curriculum initial module	cinit	cinit	cinit	cinit	cinit	cinit
group specific initial module		ginit	ginit		ginit	ginit
student initial module			sinit			sinit
start with current module (default)	current	current	current	cinit	ginit	sinit
start with initial module	cinit	ginit	sinit	cinit	ginit	sinit

Case #1

	start with current module (default)	start with initial module
student current module ("current") curriculum initial module ("cinit") group-specific initial module ( ) student initial module ( )	current	cinit

The last module the student saw was "current". The initial module for the curriculum is set to "cinit". There is no group-specific curriculum module and there is no student initial module.

If the group-specific curriculum options indicate that the student should start with the current module, the student will see module "current" the next time s/he signs on.

If the group-specific curriculum options indicate that the student should start with the initial module, the student will see module "cinit" the next time s/he signs on.

Case #2

	start with current module (default)	start with initial module
student current module ("current") curriculum initial module ("cinit") group-specific initial module ("ginit") student initial module ( )	current	ginit

The last module the student saw was "current". The initial module for the curriculum is set to "cinit". The group-specific initial module is "ginit". There is no student initial module.

If the group-specific curriculum options indicate that the student should start with the current module, the student will see module "current" the next time s/he signs on.

If the group-specific curriculum options indicate that the student should start with the initial module, the student will see module "ginit" the next time s/he signs on. (Remember that the group-specific initial module overrides the curriculum initial module.)

Case #3

	start with current module (default)	start with initial module
student current module ("current") curriculum initial module ("cinit") group-specific initial module ("ginit") student initial module ("sinit")	current	sinit

The last module the student saw was "current". The initial module for the curriculum is set to "cinit". The group-specific initial module is "ginit". The initial entry module for this student is set to "sinit".

If the group-specific curriculum options indicate that the student should start with the current module, the student will see module "current" the next time s/he signs on.

If the group-specific curriculum options indicate that the student should start with the initial module, the student will see module "sinit" the next time s/he signs on. (Remember that the student initial module overrides both the group-specific initial module and the curriculum initial module.)

Case #4

	start with current module (default)	start with initial module
student current module ( ) curriculum initial module ("cinit") group-specific initial module ( ) student initial module ( )	cinit	cinit

This student has not signed on before, so there is no current module. The initial module for the curriculum is set to "cinit". There is no group-specific curriculum module and there is no student initial module.

If the current module is blank, the student will see the appropriate initial module when s/he signs on. Therefore, the student will see module "cinit" no matter what the starting module indicates.

Case #5

	start with current module (default)	start with initial module
student current module ( ) curriculum initial module ("cinit") group-specific initial module ("ginit") student initial module ( )	ginit	ginit

This student has not signed on before, so there is no current module. The initial module for the curriculum is set to "cinit". The group-specific module for the group is set to "ginit". There is no student initial module.

If the current module is blank, the student will see the appropriate initial module when s/he signs on. Therefore, the student will see module "ginit" no matter what the starting module indicates. (Remember that the group-specific initial module overrides the curriculum initial module.)

Case #6

	start with current module (default)	start with initial module
student current module ( ) curriculum initial module ("cinit") group-specific initial module ("ginit") student initial module ("sinit")	sinit	sinit

This student has not signed on before, so there is no current module. The initial module for the curriculum is set to "cinit". The group-specific module for the group is set to "ginit". The initial entry module for this student is set to "sinit".

If the current module is blank, the student will see the appropriate initial module when s/he signs on. Therefore, the student will see module "sinit" no matter what the starting module indicates. (Remember that the student initial module overrides both the group-specific initial module and the curriculum initial module.)

EXERCISE FOR STARTING MODULE

Situation 1
Suppose your students were studying Geometry last semester. Now you want them to study Algebra. You set the initial module for the group to "algebra", but they keep being sent to the Geometry modules. What needs to be done? The answer is given below under Answer 1.

Situation 2
You have two groups of Spelling students which both use the same curriculum. You recently changed the initial module for the curriculum to "newindex". The first spelling group is starting with module "newindex", but the second spelling group is still starting with the old initial module. What needs to be done? The answer is given below under Answer 2.

Answer 1
Under Group-Specific Curriculum Options, you need to specify that the students should start every session with the initial module. Right now, they are starting every session with the current module which is a Geometry module.

Answer 2
The group-specific initial module for the second spelling group is set to the old initial module. You can change this under Group-Specific Curriculum Options.

CHAPTER 6: SEE STUDENT DATA

If you are using a student data file, *C-router* will automatically save the following data for each lesson and module.

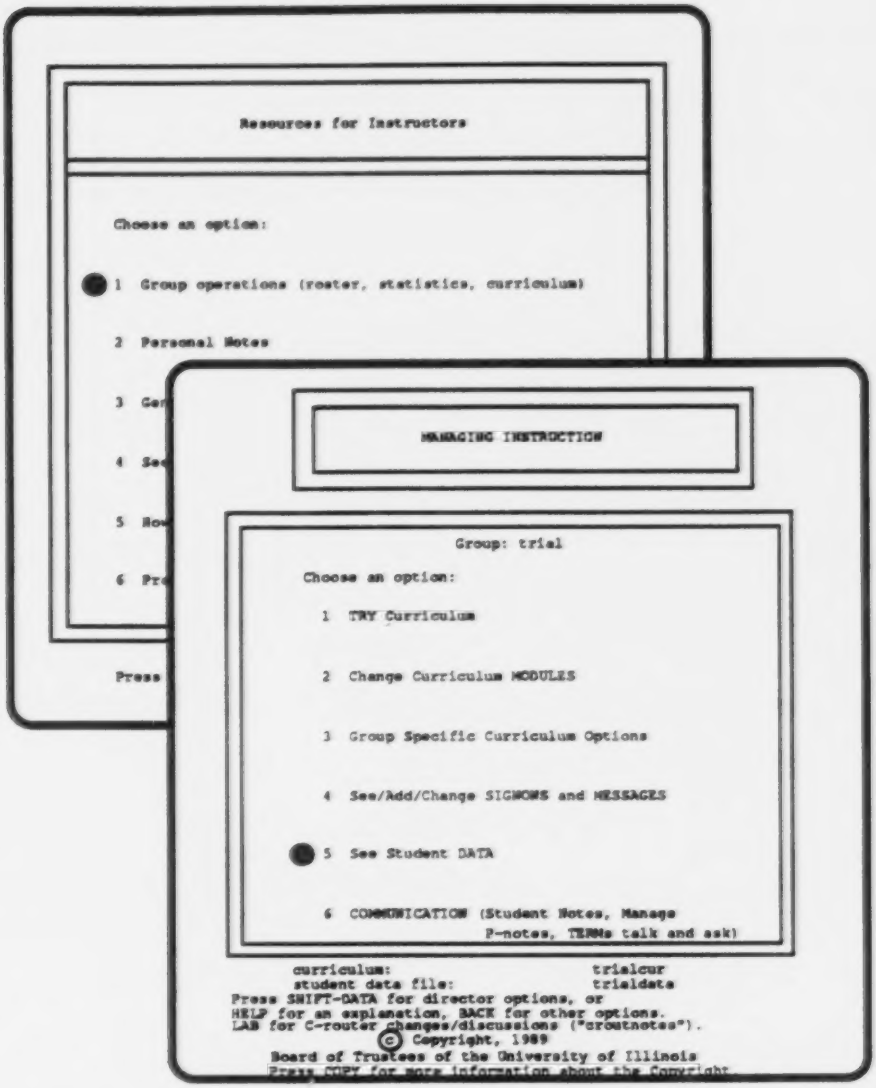
for lessons:	for modules:
score	time
completion ("ldone")	tries
time before done	done (exit by NEXT)
time after done (review time)	starting date
number of tries	last date
last date in lesson	
word of status (for every lesson)	

NOTE: Some lessons don't set a score. Also, since many different authors developed the NovaNET lessons, there are many different conventions for setting scores. Therefore, if you are not familiar with a lesson, the score may be meaningless to you.

C-router automatically prepares this information for you in a tabular format. The following pages show some examples of student data that *C-router* can automatically prepare for you. Sometimes users will want to display the student data in some other format. For example, suppose an instructor wants to see a graph which plots the score in a lesson versus the time spent in a lesson. A programmer who wants to do this sort of specialized display of student data may -use- routines in the TUTOR lesson "usecrouter". These routines will allow a programmer to read the student data. For more information, authors can inspect lesson "usecrouter".

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **5 (See Student Data)** to see the performance data for your students.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNOWS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
P-notes, TENNs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("routnotes").
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Press COPY for more information about the Copyright

After choosing to **See Student DATA**, you will see the following display.

STUDENT DATA
Choose an option:
1) Data for One Student
2) Data for All Students
3) Grading
4) Change Group Name
5) List Groups
6) Calculate Space Remaining in Student Data File
group: trial
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file
or BACK for other options.

There are two ways to look at student data. You can choose to see data for one student at a time or for all students at the same time. (You can also choose to use **Grading** options, **Change Group Name**, **List Groups**, or **Calculate Space Remaining in the file**. These last four options are described at the end of this chapter.)

DATA FOR ONE STUDENT

If you choose to see data for one student at a time (option 1 from previous display), you will be asked to enter the name of a student. After entering a student's name, you will see a display like the following. The following display is the index page for a student named Neil who is in group "trial".

The options on the previous display are:

1) See Lesson/Module data for this student (more information on the following pages)

2) See Testing 1-2-3 Answers

Testing 1-2-3 is a test package which can be used with *C-router*. For more information, see the chapter of this manual called "Using Tests". If you have a Testing 1-2-3 nameset associated with your group, the student's answers to the test questions can be saved. This option will allow you to see the tests answers. You can also use this option to delete answers that don't need to be saved any longer.

3) Signon Statistics

The signon statistics shows various statistics about the signon including: the date that the signon was created; when and where the student was last signed on; how many hours, days, and sessions the student has been on the computer; the processing time (CPU usage) that the student has used; and the disk accesses that the student has used per minute.

4) Change current module

You can change the module that the student will start the next session with by using the third option. If under *Group-Specific Curriculum Options* you decided to select the option to start every session with the initial module, the student will start with the initial module rather than the module specified as the current module. Otherwise, the student will start the next session with the specified current module.

5) Print Data

The fourth option allows you to acquire a print of the performance data on paper. You must have either a nameset or a dataset created for storing the data in printing format. When you choose to print the data, you will be told how large to make your nameset or dataset.

If you want to download your data to a microcomputer file for printing, you should use a dataset. You will be asked if you want to have -format ejects- inserted into the data. You should choose "no" since the -format eject- only has meaning if you are printing from the central computer. The end of the data will be marked by the string "*format end". You may want to search for that string so that you can zero the remainder of the dataset.

If you are printing from the central computer, you can choose either a nameset or a dataset. You will be asked if you want to have -format ejects- inserted into the data. If you choose "yes", the computer will do a page eject before starting to print a new student's data. If you are using a dataset, the end of the data will be marked by the string "*format end". This means the central computer will not print any information after the "*format end".

After this option has completely stored the data, you can print the nameset or dataset. There are several ways to print the student data.

1) You can download the data to a file on your microcomputer and print the data with a printer connected to your microcomputer. The download capability (lesson "kermit") is available when you are connected to the NovaNET system with a microcomputer using the Level 1 Protocal Program (L1PP). For more information, see lesson "kermit" and the L1PP manual .
2) You can use the NovaNET print utilities available in lesson "print". This lesson includes a selected list of printers which can be connected to your NovaNET terminal. (The option for requesting prints from the central computer can only be used by users on the University of Illinois campus with files on the Cerl system.)

6) Delete student

You can either delete the student from the group (delete signon but don't delete student performance data), or delete the student from just the student data file (delete the performance record but don't delete the signon), or delete from both the group and the student data file. Usually you will delete a student from both the group and the student data file at the same time. But you can change this so that you will delete either from the group only or from the student data file only.

See Lesson/Module Data

To see the student's performance data, choose option 1 (**See Lesson/Module Data**). You will then see the following display which lists the five ways of looking at performance data. Examples of each of these methods for displaying student data are given on the following pages.

Data for One Student
Student's name: neil/trial
Choose an option:
1 See the data for modules which student has entered.
2 See lesson data by module name.
3 See data for an individual lesson.
4 See module summaries (up to 26 on display).
5 See Tracks for Testing 1-2-3 Tests
or BACK for other options.

DATA BY MODULES ENTERED

If you choose to see data for modules which the student has entered (option 1 in previous display), the computer will generate a list of all modules in which the student has spent time studying. You can then choose which modules you want to see. (Note: if there are no lessons in a module, the student will have spent no time in the module, so the module will not be included in the list of modules.)

An example for module "fractions" follows:

Data for: neil/trial Module: fractions

done:- / time:81 min. / start: 11/23/86 / last: 12/ 22/86

lesson name	score	done	time 1	time 2	tries	date
A pizza		+	43	0	1	11/23/86
B rec	97	*	38	11	2	12/22/86

Press NEXT for the next module, BACK for other options.
SHIFT-DATA to change data.
Press HELP for an explanation of the symbols.

There are two types of data on this display.

1. **Data about module "fractions" is shown in the long horizontal box (top of display).** The data includes:

done
* if module completed (if the student left module by pressing NEXT)
- if no end to module or module not completed

start
the date that the student started this module

last date
last date that the student entered this module

time
total number of minutes studying lessons in this module

2. **The second type of data is the data for each lesson in this module.** Data includes:

score
a score for the lesson, between 0 - 100.

done
* if the lesson is completed
+ if the lesson has no end
- if the lesson was not completed

time 1
time spent in lesson before it was competed

time 2
time spent reviewing lesson (time spent in lesson after it was completed)

tries
number of times this lesson has been tried

date
last date that the student was in the lesson

If your signon will allow you to change student data, you can press SHIFT-DATA to change the data on this display. (See instructor or author information under "Change Existing Signons" for more information on whether your signon is allowed to change student data.)

LESSON DATA BY MODULE NAME

If you choose to see lesson data by module name, you can either enter the module's name or cycle through all of the modules in the curriculum. To cycle through all of the modules, press LAB to see the first (or next) module. The data generated will look like the data on the previous page.

DATA FOR INDIVIDUAL LESSON

If you choose to see data for an individual lesson, you can either enter the lesson's filename or cycle through all of the lessons in the curriculum. To cycle through all of the lessons, press either LAB to see the first (or next) lesson, or press SHIFT-LAB to see the first (or next) 26 lessons.

If your signon will allow you to change student data, you can press SHIFT-DATA to change the date on this display. (See instructor or author information under "Change Existing Signons" for more information on whether your signon is allowed to change student data.)

The following display shows an example of data for all of the lessons in a small curriculum.

Data for: neil/trial

lesson name	score	done	time1	time2	tries	date
A darts	87	*	32	0	1	11/23/86
B geofr1						
C introducec	96	*	21	0	1	11/23/86
D paint						
E pinball						
F pind		*	27	0	2	11/23/86
G pinw						
H pizza		*	43	0	1	11/23/86
I rec	97	*	38	11	2	11/23/86
J sea						
K sentences						
L span1						
M speedway						
N voc						
O west						

HELP available
LAB for first lesson.
Enter filename:
Press SHIFT-LAB for the first 26 lessons.
Press SHIFT-DATA to alter data, DATA for list of lessons.

The data includes:

score
score between 0 and 100

done
* if lesson was completed
+ if lesson has no end
- if lesson was not completed

time.1
time spent in the lesson before the lesson was completed

time.2
review time (time spent in lesson after the lesson had been completed)

tries
number of times that the student has tried this lesson

date
the last date that the student entered this lesson

MODULE SUMMARY DATA

If you choose to see module summaries, you will see information about the modules. You will not see data about the lessons that are associated with these modules.

You can either specify the name of the module for which you want data, or you can press LAB to see the first (or next) module, or SHIFT-LAB to see the first (or next) 26 modules. If your signon will allow you to change student data, you can press SHIFT-DATA to change the data on this display. (See instructor or author information under "Change Existing Signons" for more information on whether your signon is allowed to change student data.)

The following display shows the module summary data for a small curriculum.

student: neil/trial

module name	tries	done	time in module	starting date	last date
A decimals	1	-	42	11/23/86	11/23/86
B fractions	2	-	81	11/23/86	12/22/86
C languages					
D main	2	*	2	11/23/86	11/23/86
E math					

Enter Module:▶ Press HELP for explanation.
LAB for first module, SHIFT-LAB for first 26 modules.
Press SHIFT-DATA to alter data, DATA for list of modules.

This data includes:

tries
the number of times the student entered this module after leaving another module or when signing on

done
* if the module was completed (a module is considered to be completed if the student presses NEXT and is able to leave the module)
- if the module is not done or if there is no end to the module

time in module
number of minutes that the student has spent studying lessons in this module

starting date
the first date that the student entered this module

last date
the last date that the student was in this module

TRACKS FOR TESTING 1-2-3 TESTS

A testing package called *Testing 1-2-3* can be used with *C-router*. For more information on *Testing 1-2-3*, see the Chapter in this manual called "Using Tests".

Testing 1-2-3 allows you to assign test items or pools to "tracks". You can then see which tracks a student passed or failed as well as an overall score for the test. The overall score for a test is reported as a score is for any other *C-router* lesson. You can see the pass/fail information for tracks by choosing **See Tracks for Testing 1-2-3 Tests**.

When you choose to see the Track information, you will be asked to specify a filename. This is the filename of the nameset which contains the test. You will then be shown the pass/fail information for each track.

DATA FOR ALL STUDENTS

If you choose to see data for all students (from the *Student Data* display), you will see the following display.

Data for All Students
Choose a type of Data:
1) Lesson data
2) Module summary data
3) Signon Statistics
4) Print data for all students
5) Delete ALL students
6) Delete Testing 1-2-3 answers
Press BACK for other options.

The options for Data for All Students are:

1) Lesson data (This option allows you to see the data for all students in one lesson. More information on following pages.)

2) Module Summary data (With this option, you can see the data for all students in one module. More information on following pages.)

3) Signon Statistics (The third option shows summary information for when and how the signons were used.)

4) Print Data

There are two types of data which can be printed. One is Lesson/Module Data and the other is Signon Statistics.

a) Lesson/Module Data

(This option allows you to get a print on paper of all of the student data.) You must have either a nameset or a dataset created for storing the data in printing format. When you choose to print the data, you will be told how large to make your nameset or dataset.

If you want to download your data to a microcomputer file for printing, you should use a dataset. You will be asked if you want to have -format ejects- inserted into the data. You should choose "no" since the -format eject- only has meaning if you are printing from the central computer. The end of the data will be marked by the string "*format end". You may want to search for that string so that you can zero the remainder of the dataset.

If you are printing from the central computer, you can choose either a nameset or a dataset. You will be asked if you want to have -format ejects- inserted into the data. If you choose "yes", the computer will do a page eject before starting to print a new student's data. If you are using a dataset, the end of the data will be marked by the string "*format end". This means the central computer will not print any information after the "*format end".

After this option has completely stored the data, you can print the nameset or dataset. There are several ways to print the student data.

1) You can download the data to a file on your microcomputer and print the data with a printer connected to your microcomputer. The download capability (lesson "kermit") is available when you are connected to the NovaNET system with a microcomputer using the Level 1 Protocal Program (L1PP). For more information, see lesson "kermit" and the L1PP manual .
2) You can use the NovaNET print utilities available in lesson "print". This lesson includes a selected list of printers which can be connected to your NovaNET terminal. (The option for requesting prints from the central computer can only be used by users on the University of Illinois campus with files on the Cerl system.)

b) Signon Statistics

The signon statistics include information like when a signon was created, the last time it was used, and the hours that it has been used. You must have a nameset or dataset to store the statistics in. You can use one of the methods described above for printing the data.

5) Delete ALL Students (This option allows you to delete all of the students from the group and/or the student data file.)

To delete a group of signons (for example to delete all student signons), press SHIFT-NEXT.

Press DATA if you want to see a list of signons.

You must also specify which files you want to delete from. You can delete the signon from just the group (delete signon but don't delete student performance data), you can delete the signon from just the student data file (delete only the performance record but don't delete the signon), or you can delete from both the group and the student data file. Usually you will delete signons from both the group and the student data file at the same time. But, you can change this so that you will delete either from the group only or from the student data file only.

6) Delete Testing 1-2-3 Answers
Testing 1-2-3 is a test package which can be used with *C-router*. For more information, see the chapter of this manual called "Using Tests". If you have a Testing 1-2-3 nameset associated with your group, the student's answers to the test questions can be saved. Since room is needed to store each set of test answers, you should delete the test answers that you don't need. Use this option to delete answers that are no longer needed.

LESSON DATA

The following display shows the lesson data for all students for lesson "introducec". (This is from option 1 in the previous display.) You can either specify the name of the lesson for which you want data, or you can press LAB to see the first or next lesson. If your signon will allow you to change student data, you can press SHIFT-DATA to change the data on this display. (See instructor or author information under "Change Existing Signons" for more information on whether your signon is allowed to change student data.)

```
Lesson: introducec
student name      score   done   time1   time2   tries     date
A  amy
B  eric             89      -      13       0       1   11/22/86
C  erin
D  mark
E  neil             96      *      21       0       1   11/23/86
F  paula
G  sally
H  sarah
I  trent

                                        HELP for explanation
Enter filename:                         LAB for next lesson.
Press SHIFT-DATA to alter data, DATA for list of lessons.
```

This data includes:

score
score between 0 and 100

done
- * if lesson was completed
- + if lesson has no end
- - if lesson was not completed

time1
time spent in the lesson before the lesson was completed

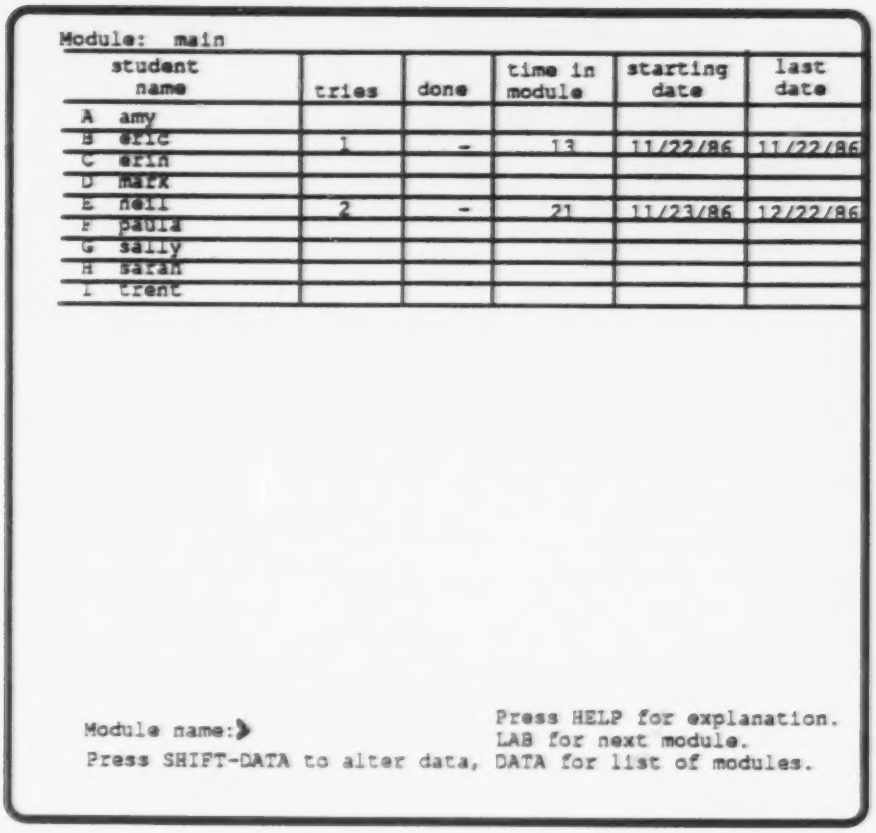
time2
review time spent in the lesson (time spent in the lesson after the lesson has been completed).

tries
number of times that the student has tried this lesson

date
the last date that the student entered this lesson

MODULE SUMMARY DATA

The following display shows the module summary data for all of the students for module "main". You can either specify the name of the module for which you want data, or you can press LAB to see the first or next module. If your signon will allow you to change student data, you can press SHIFT-DATA to change the data on this display. (See instructor or author information under "Change Existing Signons" for more information on whether your signon is allowed to change student data.)



Module: main

	student name	tries	done	time in module	starting date	last date
A	amy					
B	eric	1	-	13	11/22/86	11/22/86
C	erin					
D	mark					
E	neil	2	-	21	11/23/86	12/22/86
F	paula					
G	sally					
H	sarah					
I	trent					

Module name:

Press HELP for explanation.
LAB for next module.
Press SHIFT-DATA to alter data, DATA for list of modules.

The data includes:

tries
the number of times the student entered this module after leaving another module or when signing on

done
* if the module was completed (a module is considered to be completed if the student presses NEXT and is able to leave the module.)
- if the module is not done or if there is no end to the module.

time in module
number of minutes that the student has spent studying lessons in this module.

starting date
the first date that the student entered this module.

last date
the last date that the student was in this module.

GRADING

By using *C-router*'s Grading option, the instructor can specify many different points which will be used to determine the overall grade for a course. For example, an instructor may specify that attendance, quiz grades, test grades, project grades, and a final exam grade will all contribute to the student's semester grade.

Points can be acquired either through lessons or off-line assignments which were listed in the curriculum. For example, attendance may be listed as an off-line assignment. The off-line assignment may be listed in a module that the student will never see, and the instructor can set a grade for attendance by using the **Student Data** Options.

If you choose the Grading Option from the *Student Data* display, you will be given two options:

- Define grading plan
- See grades

DEFINE GRADING PLAN

This option allows you to specify which values will be used to determine the overall grade. The following is an example grading plan.

Define Grading Plan

	Module name	maximum points	percent of grade	number to eliminate
1	attendance	50.00	5.00	0
2	homework	100.00	10.00	3
3	quizzes	100.00	20.00	2
4	tests	300.00	30.00	0
5	final	100.00	35.00	0
6				
		650.00	100.00	

Lowest possible percent for:

A	90.00
B	80.00
C	70.00
D	60.00

Type the number of the module that you want to add or change, or type the letter of the grade that you want to add or change.

Press HELP for help,
press SHIFT-NEXT to store changes, or
press SHIFT-BACK to exit without storing changes.

Up to six modules can be listed for grading purposes. This example lists five modules. The student may (or may not) see the modules which are used for grading. For example, module "quizzes" may contain 20 quiz lessons which were scattered through the curriculum. But, the instructor created another module "quizzes" just so that all of the scores could be associated together for grading purposes. Since *C-router* saves only one set of scores no matter how many times the same lesson is referenced in the curriculum, the score will be set for these quizzes even if the student entered the quiz from a different module.

The column for maximum number of points indicates the maximum total score that the student can receive for that module. The maximum points is then used to determine the percentage of the grade for that module. For example, if a student receives 40 points for module "attendance", that student will receive 80% for module attendance.

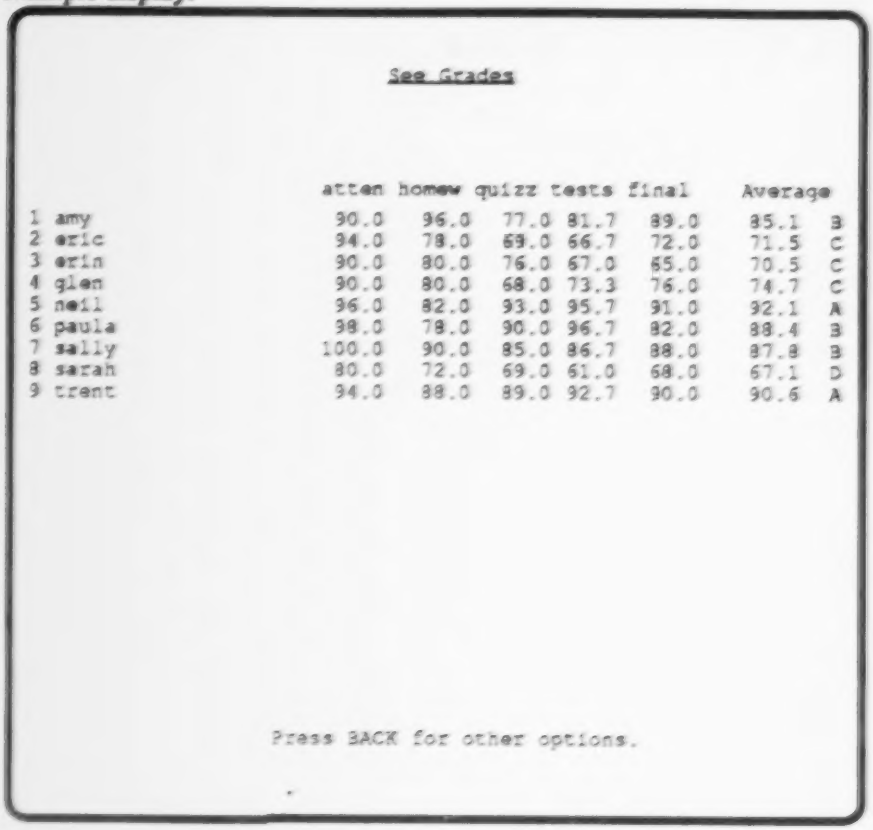
The "percent of grade" column indicates how much that module contributes to the overall grade for the course. For example, 5% of the total grade for the course is determined by the points that the student earned in module "attendance".

The "number to eliminate" column indicates how many lessons or off-line assignments in the module can be eliminated before calculating the number of points. The items with the lowest scores are eliminated first. For example, in module "homework", the 3 homeworks with the lowest scores are not included in the student's total number of points earned for module "homework".

The smaller table indicates the range of percents for a letter grade. For example, any student with an overall percentage between or including 90% to 100% will receive an A for the course.

SEE GRADES

This option calculates and displays the student's percentage for each grading module and the percentage for the overall course grade. The following is an example display.



See Grades

		atten	homew	quizz	tests	final	Average	
1	amy	90.0	96.0	77.0	81.7	89.0	85.1	B
2	eric	94.0	78.0	69.0	66.7	72.0	71.5	C
3	erin	90.0	80.0	76.0	67.0	65.0	70.5	C
4	glen	90.0	80.0	68.0	73.3	76.0	74.7	C
5	neil	96.0	82.0	93.0	95.7	91.0	92.1	A
6	paula	98.0	78.0	90.0	96.7	82.0	88.4	B
7	sally	100.0	90.0	85.0	86.7	88.0	87.8	B
8	sarah	80.0	72.0	69.0	61.0	68.0	67.1	D
9	trent	94.0	88.0	89.0	92.7	90.0	90.6	A

Press BACK for other options.

EXERCISE FOR GRADING

Assume that the students in your course will be given two tests and three homework assignments. One of the tests will be given on the NovaNET system, the other will be given on paper. The on-line test, which is filename "crouttest" should be in the initial module of the curriculum, and the students should never see any reference to the off-line test on the NovaNET system. All of the homeworks will be done off of the computer.

Each test and each homework assignment can earn a maximum of 100 points, and you should ignore the lowest homework grade.

The tests count for 70% of the overall grade and the homeworks count for 30% of the overall grade.

- Create the appropriate curriculum and define the grading plan.
- Sign on with a student signon and take the on-line test. (All this test does is assign a score.)
- Look at the student data for the student signon and assign the following scores for the off-line test and homeworks:

  off-line test 81
  homework1 100
  homework2 90
  homework3 80

- Now look at the See Grades section. Your student signon should receive an overall course grade of 83.1 %.
- If you have trouble creating this grading situation, or if your student doesn't get an overall score of 83.1%, check the solution on the next page.

146 See student data

Solution

- Enter the test "crouttest" in the **initial module** of the curriculum.
- Create a **new module** in the curriculum called "test" and **enter the lesson "crouttest" and the off-line assignment "off-line test"** into the module "test". (*C--router* treats an on-line test just like a lesson, so use the L editing directive for enter "crouttest". Use the O editing directive for enter the off-line test.) The students will never see module "test" since it isn't connected to any other module. You are creating module "test" only for grading purposes. Since *C-router* only maintains one score for a lesson even if it appears more than once in the curriculum, the score that the student earns in "crouttest" from the initial module will also be the score for "crouttest" in module "test".
- Create a **new module** in the curriculum called "homework" and enter **3 off-line assignments called "homework1", "homework2", "homework3"**. The students will never see module "homework" since it isn't connected to any other module. You are creating module "homework" only for grading purposes.
- Now choose **See Student Data**.
- Choose **Grading**

- Choose **Define Grading Plan**. The grading plan should look like this:

Define Grading Plan

	Module name	maximum points	percent of grade	number to eliminate
1	test	200.00	70.00	0
2	homework	200.00	30.00	1
3				
4				
5				
6				
		400.00	100.00	

Lowest possible percent for:

A	
B	
C	
D	

Type the number of the module that you want to add or change, or type the letter of the grade that you want to add or change.

Press HELP for help,
press SHIFT-NEXT to store changes, or
press SHIFT-BACK to exit without storing changes.

Note: The maximum number of points for module "homework" is 200 because the lowest homework grade is eliminated.

Next, you need to set the scores for a student.

- Sign on with a newly created **student signon** and study lesson **"crouttest"**.
- Sign back on with your **instructor signon** and enter the group. Choose to **See Student DATA**.
- Enter the name of the **newly created student signon**.
- Choose to **See Lesson/Module Data**
- Next, choose to **See lesson data by module name**.
- Specify module **"test"**. Set the off-line test score by pressing SHIFT-DATA and following the instructions.
- Specify module **"homework"** and set the scores for the homework assignments.

- Finally, choose to **See Grades**. The average for the student should be 83.1%.

CHANGE GROUP NAME

Another option under **See Student DATA** is to **Change Group Name**. Each student's data is stored separately and is labeled by both the student's name and the student's group. If you rename your group by using the account options, you must also use this option to change all of the labels in the student data file.

If the name of the group was changed and a student signed on before you used this option to rename the group, then there will be two entries for the student (one entry will be "student name/oldgroup" and the other entry will be "student name/newgroup"). Once this option is performed, the student data will be combined and stored under the entry "student name/newgroup".

LIST GROUPS

The final option under **See Student DATA** is to **Manage multiple groups**. Each student's data is stored separately and is labeled by both the student's name and the student's group. Since the student data is labeled by both name and group, a student data file can contain data for more than one group (as long as all of the groups use the same curriculum file). However, it is best to use one student data file for each group because sharing a student data file among several groups may make it more difficult to look at student data for one group at a time. If you use this option, you can see which groups are using your student data file.

CALCULATE SPACE REMAINING IN STUDENT DATA FILE

When you create your student data file, you estimate how many students you think will be stored in the file and the average number lessons studied by each student. The size of your file is made according to these estimates. If you end up needing more space than you estimated, you will need to ask your account director to lengthen your student data file.

As your student data file fills up, warning messages are sent to your Student Notes file. Warnings are sent when the file is 80% full, 90% full, and 100% full. For this reason, it is very important to check your student notes file regularly. (For more information, look in this manual under Student Notes.)

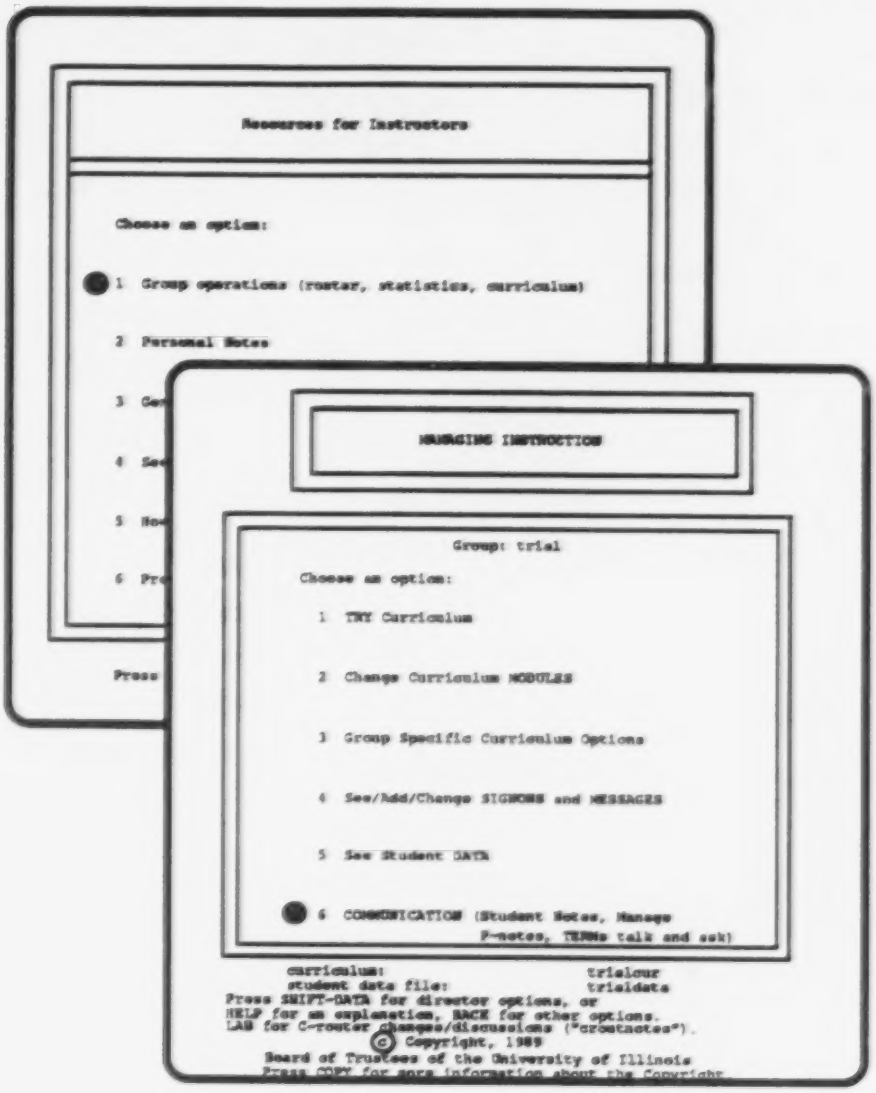
Sometimes you may wonder how full your student data file is getting even though you haven't received any warning messages. You can use the option **Calculate Space Remaining in Student Data File** to check on the status of your file.

CHAPTER 7: COMMUNICATION (STUDENT NOTES, MANAGE P-NOTES, TERM-TALK, TERM-ASK)

There are three types of communications that are related to a group: Student Notes, Managing P-notes, and TERM-ask. This section describes how to manage these types of communications.

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **6 (COMMUNICATION (Student Notes, Manage P-notes, TERM-ask)** to manage these types of communication.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("crnotes").
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Press COPY for more information about the Copyright

After choosing the Communication option, you will see the following display.

The four types of communication are described on the following pages.

STUDENT NOTES

A student notes file allows you to have "electronic" conversations with your students. Your students can store notes for you. You can read and respond to those notes and store new notes for individual students to read. Warning messages that your student data file is filling up and error messages are also stored in your student notes file.

If you want to use student notes, you must create a student notes file and attach it to your group.

To create a student notes file and attach it to your group:

1. Ask your account director to create a student notes file. (Note: student notes are a special type of notes file. You can't use a general notes file for a student notes file.)

2. **Specify the name of the student notes file for your group.**
   a. Instructors choose option **1 (Group Operations)**. Authors should enter their group by typing the group name on the *AUTHOR MODE* display and then pressing DATA.

   b. Both authors and instructors should then choose option **6 (COMMUNICATION)**.

   c. Choose option **1 (Student Notes)**.

   d. You can then type the **name of the student notes file**.

You should check your student notes file regularly so that you can respond to all notes from students.

READING STUDENT NOTES

There are several ways to read student notes:

1. Check student notes through group options.

   a. Instructors choose option **1 (Group Operations)**. Authors should enter their group by typing the group name on the *AUTHOR MODE* display and then pressing DATA.

   b. Both authors and instructors should then choose option **6 (COMMUNICATION)**.

   c. Choose option **1 (Student Notes)**.

2. Enter student notes from Notes option or from *AUTHOR MODE* display.

   If you have several student notes files for several different groups, it time consuming to enter each group in order to read the student notes. An easier way would be:

   a. Instructors should choose option **3 (General Notes)** from their *Resources for Instructor* index and enter the name of a student notes file which they would like to read.

   b. Authors should enter the name of the student notes file on the *AUTHOR MODE* display and then press NEXT.

3. Use Notes file Sequencer
   If you use a notes file sequencer to help you keep track of the notes that you have not yet read, you can add your student notes files to your sequencer. See Section A of this manual for more information about notes file sequencers.

INHIBITING STUDENTS FROM WRITING STUDENT NOTES

Some instructors want to use their student notes only for storing warning messages and error messages. They don't want their students to be able to write student notes. You can inhibit students from writing in the student notes file, by:

- choose the COMMUNICATION option from the Managing Instruction menu
- choose the option for Student Notes (If there isn't a student notes file specified, enter the name of the student notes file.)
- press LAB to inhibit students from writing in the student notes file.

MANAGE P-NOTES

Personal notes (or **p-notes**) provide *electronic mail* service on the NovaNET system. P-notes are sent directly from one user to another and can be read only by the designated recipient. For information on sending Personal Notes, see the chapter "Personal Notes" in the first section of this manual.

Users with edit access to the group can manage personal notes. When you manage personal notes, you can:

- Inspect/Change File limits (limits for entire group)
- Inspect/Change Individual limits (limits for one signon)
- Student access (allow students in group to receive personal notes)
- File cleanup (delete p-notes which belong to deleted signons)

Even though you may be able to manage personal notes, you can't read the personal notes which belong to another signon. This is to protect the privacy of all users.

STUDENT TERM-TALK

This option allows you to choose whether or not student signons in this group are allowed to use TERM-talk. Authors or instructors may always use TERM-talk. Multiples and students with a password of "NONE REQUIRED" will never be able to TERM-talk.

When a group is created, students are not allowed to TERM-talk. Use this option to change that setting.

TERM-ASK

TERM-ask allows real-time interaction between a student and an instructor. If the student has a question, s/he can press the TERM key (this is a shifted key). The system will then ask the student "which term" and the student should respond by typing *ask*. Then the instructor will be notified that someone has a question. The instructor can then see the student's display and talk to the student.

1 To set-up your group so that you can receive TERM-ask requests:
   - choose the TERM-ask option from the *COMMUNICATION* index. If you don't have a TERM-ask group specified, you will have to specify the group. The TERM-ask group is the group which contains the signons of the instructors who will be answering the TERM-ask requests.
     EXAMPLE: Suppose you have students in groups "math1" and "math2". The instructors only have signons in group "math1". Then the TERM-ask group for both "math1" and "math2" would be "math1" since that is the group which contains the instructor signons.
   - Press NEXT to check the "ask" requests. This will take you to the TERM-ask options. On the bottom of this display, you can see whether or not your TERM-ask flag is on. If the TERM-ask flag is off, press DATA to turn it on. (Be sure you are signed on in the TERM-ask group when you do this.)

2 When the student wants to ask for help:
   - The student should press the TERM key (this is a shifted key and it can be pressed from almost anywhere on the system).
   - The system will respond with "what term", the student should type **ask** and press NEXT.

3 The student will then see one of the following messages:
   - Sorry, your group is not prepared for TERM-ask.
     This means the instructor must complete step 1 above.
   - No one is available. NEXT to leave a note, or BACK to return.
     This means that no instructors are currently signed on who can answer the request for help. If the student presses NEXT, s/he can leave a note in the student notes file. (If the group does not have a student notes file, the student will not be given the option to write a note in the student notes file.)
   - Your request for help has been received. Press NEXT to renew your request, or SHIFT-HELP to cancel it.
     This means that an instructor who can answer the request is currently signed on. If the student presses NEXT, the instructor will receive a message like:
     student name/group name/system name 8-7 has a question.
     The two numbers identify the site number and station number.

4 When the instructor sees the message saying that someone has a question:

- The instructor should choose the **COMMUNICATION** option from the *Managing Instruction* display.
- Next, the instructor should choose option 3 for TERM-ask.
- Press **NEXT** to see the "ask" requests.
- Choose 3 to see TERM-ask requests for the group. You will then be able to choose one of the following three options:

  1) SEND message to someone
  2) MONITOR someone
  3) DELETE a request

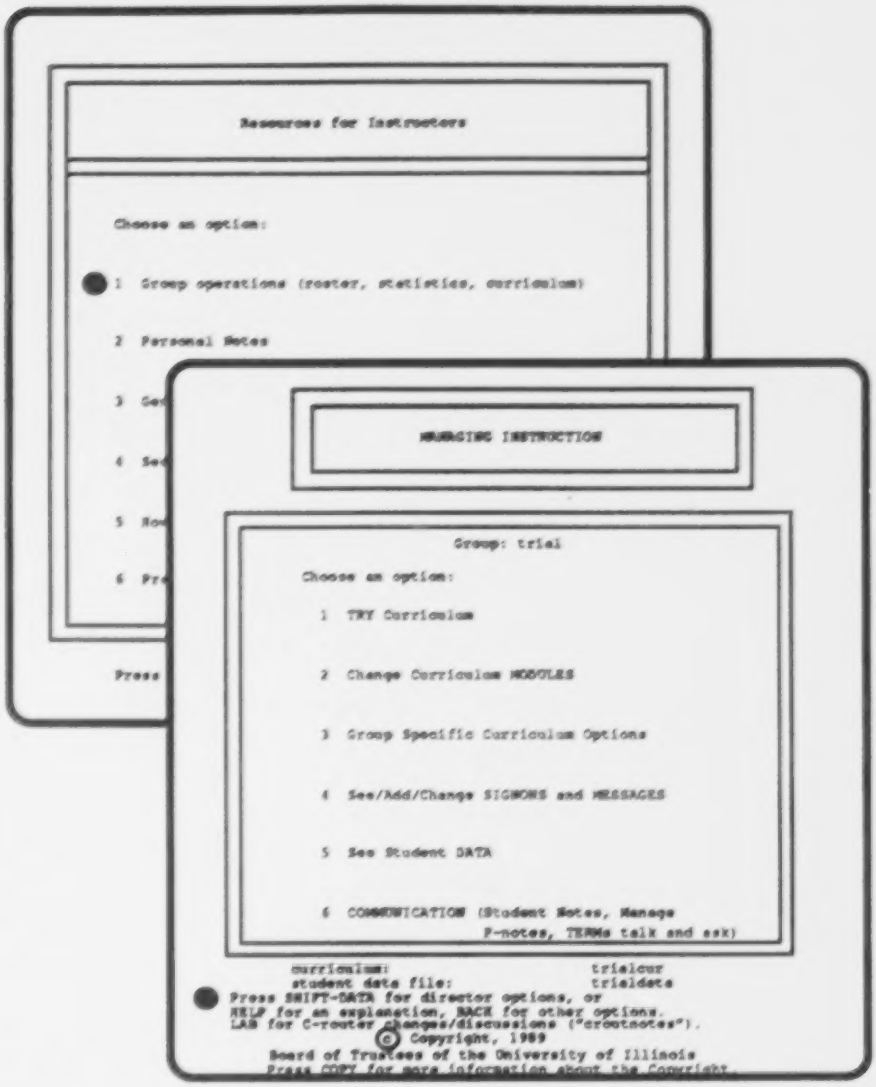
  For more information, press *HELP* from that display.

CHAPTER 8: DIRECTOR OPTIONS

The director options allow you to change the associated files (curriculum file and student data file) and to change the access list (the list of who is allowed to change your group).

Instructors can use the director options by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the Managing Instruction display after typing the group name on the *AUTHOR MODE* display.)

Press **SHIFT-DATA** for director options.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
Press
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage
P-notes, TERMs talk and esk)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
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You will then be able to choose to either Change Associated Files or Change Access List.

CHANGE ASSOCIATED FILES

Every group must have a curriculum file associated with it. The curriculum file holds the assignments for the students. The student data file holds the progress information about the student (scores on lessons, time in lessons, etc.). The student data file is optional. If you don't want to save the progress information, you don't need to specify a student data file.

Under the Change Associated Files options, you can change either the curriculum file or the student data file. If you don't want to change the files, or when you are done specifying the associated files, press *c* to return to the main index.

If you change the curriculum file, the data in the student data file will no longer be valid. This is because the data in the student data file refers to data for a different curriculum. Therefore, when you change the name of the curriculum file, the data in the student data file will be zeroed.

If you choose to change the student data file, you can either enter the name of the new student data file, or you can press LAB if you don't want to store student data.

CHANGE ACCESS LIST

The access list specifies which signons are allowed to look at, and change, your group.

If you don't specify anything in the access list the following users will have the following types of access:

instructors in their own group	can look at the group (but not change anything) without having to provide a codeword.
all other users	will have to provide the WRITE records codeword in order to change the information in the group or the READ records codeword in order to only look at the group.

If you want to specify different access rights, you need to change the access list. The following types of access can be specified:

Inspect (no codewords)	The user can look at the group but not change any of the information. The user will not have to specify a codeword.
Edit (no codeword)	The user can change any of the information in the group without providing a codeword.
None	There is no way for the user to even look at the group.
Special	You can turn some options on and some options off for the user. The user will not need to provide a codeword.
By Codeword	The user will have to provide the WRITE records codeword in order to change the information in the group or the READ records codeword in order to only look at the group.

WARNING: Be sure to keep your access list up-to-date. If a signon is deleted, be sure to delete the entry in the access list. This is necessary because the signon could be re-created and given to someone who really should not have access to your group.

EXAMPLE:

Let's suppose you have a group and you would like to give the following types of access to people in your group:

- the signon myers should be able to change everything in the group without having to provide a codeword.
- all other Instructors in the group should be able to only add students and look at the student data.
- all other users in the group must specify a codeword in order to enter the group.
- the signon myers in group "social" should be able to change everything in the group without specifying a codeword.
- everyone else should not be able to even look at the group.

To do this:

- Press **SHIFT-DATA** from the *Managing Instruction* display for Director Options.

- Choose option **2 for Change Access List.**

First, let's give Myers in your group Edit access (without codewords).

- Press **COPY** to work with your group.

- enter the user's name which is ***myers*** (If *myers* doesn't exist in your group, choose another name that does exist.)

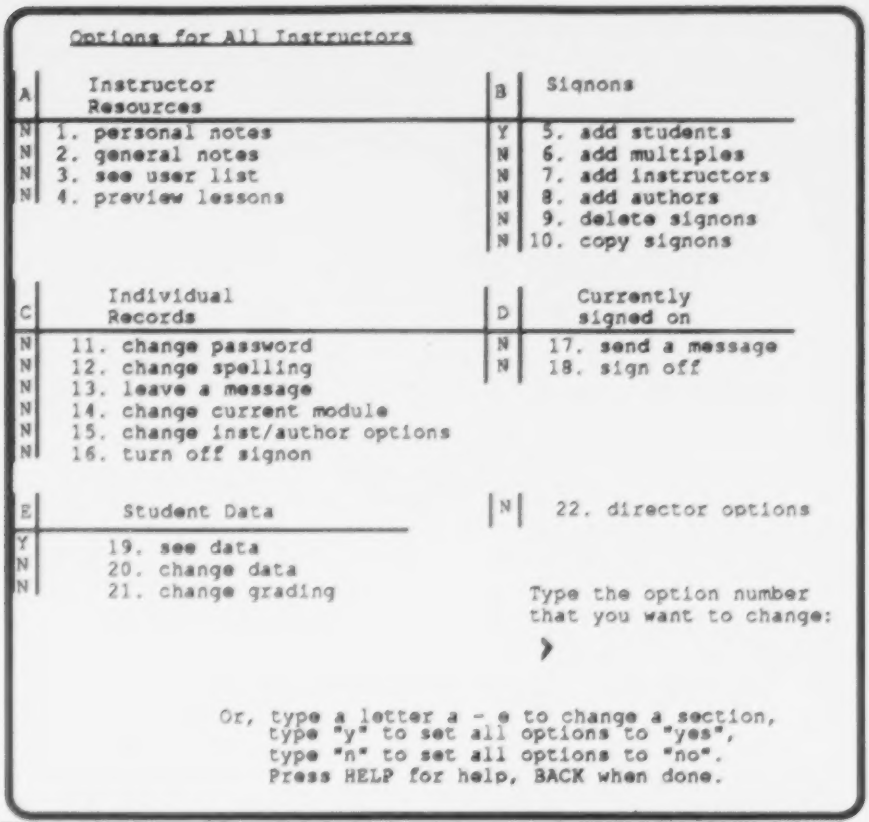
- Press ***e*** for Edit without codewords.

Next, let's set the access for all other instructors in your group to be able to add students and see student data without having to provide a codeword. This would be special access since some options are turned on and some are turned off.

- You should already be specifying access for your own group. So, you probably won't have to specify the group name.

- You can either enter the name of a user, or choose all users of a particular type. Since we want to specify access for all instructors in your group, we should press **SHIFT-I** for all instructors. Then press NEXT.

- Next press ***s*** for Special Access. You will see a chart like the following:


Options for All Instructors
A
Instructor Resources
N 1. personal notes
N 2. general notes
N 3. see user list
N 4. preview lessons
B
Signons
Y 5. add students
N 6. add multiples
N 7. add instructors
N 8. add authors
N 9. delete signons
N 10. copy signons
C
Individual Records
N 11. change password
N 12. change spelling
N 13. leave a message
N 14. change current module
N 15. change inst/author options
N 16. turn off signon
D
Currently signed on
N 17. send a message
N 18. sign off
E
Student Data
Y 19. see data
N 20. change data
N 21. change grading
N 22. director options
Type the option number that you want to change:
Or, type a letter a - e to change a section,
type "y" to set all options to "yes",
type "n" to set all options to "no".
Press HELP for help, BACK when done.

This table shows 22 options which can be turned on or off. If an option has an N, then the option is turned off. If the option has a Y, then the option is turned on. To change an option, type the number of the option and then press NEXT. If the option is set to Y (yes), then typing the number will change it to N (no). Likewise, if the option is set to N, typing the number will change it to Y.

The options are divided into 5 sections (A,B,C,D,E). If you type a section letter, all of the options in that section will be changed.

You can also set all of the options in all of the sections to Y by typing **y**, or you can set all of the options in all of the sections to N by typing **n**.

- You should turn options 5 and 19 to Y for yes.
- Press **BACK** when options 5 and 19 are set to Y and the other options are set to N.

Next, let's give Myers in group "social" Edit access (without codewords).

- Since you are specify access for a new group, press **BACK** so that you can enter the new group name.
- Enter the name of the user's group which is ***social***. (Note, you may run into problems if you are trying to replicate this example in your own group. This is because if there is no group "social", the system won't let you enter "social". If that is the case, just pick the name of another group which you know exists.)
- enter the user's name which is ***myers*** (If *myers* doesn't exist in your group, choose another name that does exist.)
- Press ***e*** for Edit without codewords.

Next, specify that all other users should not be able to enter the group at all.

- Press

so that you will be on the display where you need to enter the name of a group. Instead of entering the name of a group, press **LAB** for Other groups.

- Then press ***n*** for None access.

The default for other users in your group should be By Codewords, so that does not need to be specifically set.

To check your access list:

- When you are supposed to enter a group name, you can press **DATA** to see a list of groups. If you press DATA now, you should see social, your group, and Other.
- Press COPY to work with your group.
- Now instead of entering a user name, press **DATA** for a list of users in your group's access list. You should see:

myers E	(which means that myers has Edit access with no codewords)
A B	(which means that all authors have to give a codeword in order to access the group. This is the default for authors in a group.)
I S	(which means that all other instructors have Special access).

EXERCISE FOR ACCESS LISTS

Give the following users in your group the following types of access:

- authors in your group have no access to the group
- instructors in your group can look at everything in the group but can't change anything
- a signon named "joe" can change anything in the group without providing a codeword. (You may have to create a signon named "joe" before setting the access.)
- and a user named "mary" can only add students and change passwords.(You may have to create a signon named "mary" before setting the access.)

After you have set the above access, look at the access list for your group. It should look like:

joe E	(which means joe can edit the group without a codeword)
mary S	(which means that Mary has Special access)
A N	(which means all other authors have access of None)
I I	(which means all other instructors have access of Inspect)

CHAPTER 9: *C-ROUTER* CHANGES/DISCUSSIONS

If you have questions about *C-router*, you can ask them in the notes file "croutnotes". This notes file was created for:

- announcements of changes to *C-router*
- suggestions for changes to *C-router*
- questions about *C-router*
- sharing curricula or ideas with other *C-router* users.

You can get to "croutnotes" by pressing LAB from the Managing Instruction display. However, to insure that you don't miss any important announcements, it is best to put "croutnotes" on your notes file sequencer. More information about the notes file sequencer, is available in the first section of this manual.

CHAPTER 10: SUMMARY OF DELIVERING INSTRUCTION

The following checklist summarizes all the steps that you need to follow in order to set up a *C-router* group.

1. Design Curriculum

If you are going to be using an existing curriculum, find out the name of the curriculum and the READ records codeword.

If you are going to make your own curriculum, decide which lessons you want your students to see. You must know the filename for each lesson. You can find the filename by looking in the catalog of lessons. (To get to this catalog, if you have an instructor signon choose the option **Preview Lessons** and press LAB for the catalog, or if you have an author signon, type **C** (SHIFTed) on the *AUTHOR MODE* display.) Design your curriculum on paper. See the chapter of the manual titled "Structure of a Curriculum".

2. Create Files

Create your files and make the necessary connections. See the chapter of this manual titled "Creating Your Files".

3) Edit Curriculum (optional)

If you are using an existing curriculum, you do not have to do this section.

If you are creating a new curriculum you will have to enter your curriculum into the computer. See the section of the manual titled "Advanced: Building Curricula". If you are creating a curriculum for the first time, you may want to use the help lesson to practice the editing options before editing your curriculum.

4) Add Signons

Enter the signons for the students and/or instructors. See the chapter of the manual titled "See/Add/Change Signons". Create a student or instructor signon for yourself so that you can test out the curriculum.

5) Test Signon

Use your student or instructor signon to sign on to the computer and test the curriculum. Make sure that you can get to all of the modules that the students should study.

6) Check Student Data

Check the student data to see if your signon stored data correctly. See the chapter of this manual titled "See Student Data".

Section D

Advanced:

Building

Curricula

CHAPTER 1: STRUCTURE OF A CURRICULUM

A curriculum is basically a list of lessons which is organized into displays or units called modules. This chapter gives an overview of different ways to organize a curriculum. The other chapters of this section describe how to enter the curriculum into the computer and give much more specific information about *C-router* capabilities.

The first step for building a curriculum is to determine which computer lessons and which computer tests you would like your students to study. The list of lessons should include both the file title and the filename. The file title is similar to the title of a book, for example "HELP lesson for using *C-ROUTER*". The filename is a unique name with 10 or fewer characters that the computer uses to reference the lesson, for example "currhelp". You can find both the file title and the filename in the Catalog of Available Lessons. (To see this catalog, if you have an author signon type **C** (SHIFTed) on the *AUTHOR MODE* display, or if you have an instructor signon choose the option **Preview a lesson** and press **LAB** for the catalog.)

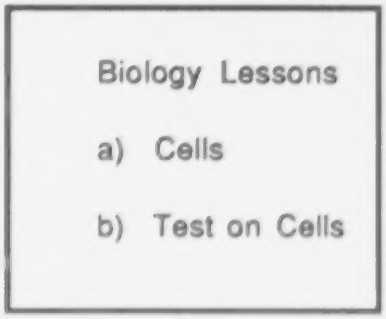
In addition to including lessons in your curriculum, you can also include off-line assignments. An off-line assignment is something which is not done on the computer. For example, you may want to assign a test on paper or a chapter in a book. One advantage of using off-line assignments is that you can have all of the assignments in one location. You can mark off-line assignments as being "completed" or enter a score for an off-line assignment. Therefore, another advantage of using off-line assignments is to have all of the student's performance data in one location.

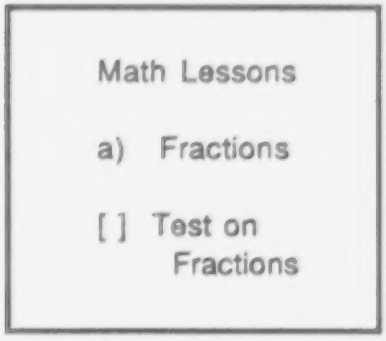
Once you have decided which assignments (lessons, tests, and off-line assignments) should be included in your curriculum, you must organize the list of assignments. For example, the assignments can be organized according to subject matter or according to the order in which you want your students to study the assignments.

The assignments are displayed to the student in a series of computer displays. Each display is called a module. The contents of a module will depend on how you have organized your list of assignments. A module can contain no more than 26 lines.

Curricula Structures

Suppose you want your students to do two Biology assignments and two Math assignments. You could organize your curriculum into the following two modules. Each box represents a separate module.





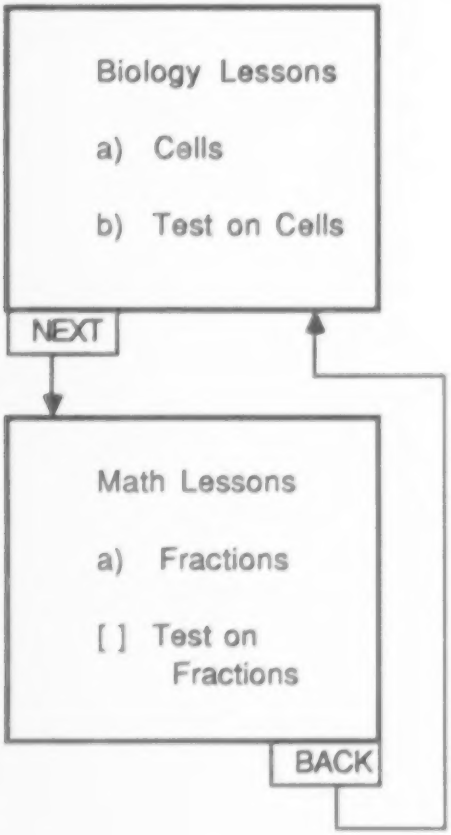
In the Biology module, the student would type **a** to study the lesson on Cells and **b** to take a test on Cells.

The Math module contains one lesson and one off-line assignment. To see the lesson on Fractions, the student would type **a**. The Fractions Test has the symbols [ ] instead of a letter since the Fractions Test is an off-line assignment.

Structured Curricula

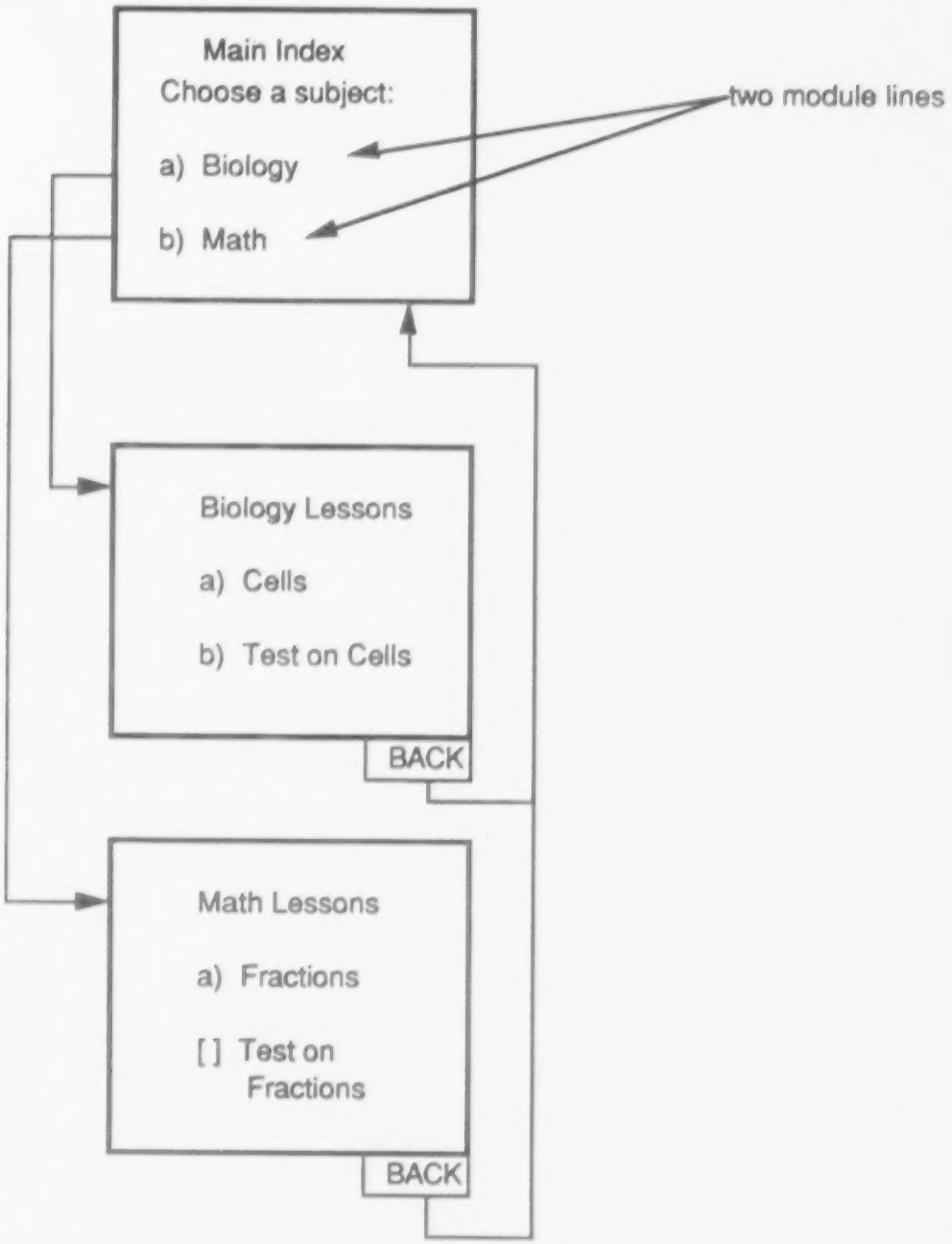
There are two ways for the students to progress between modules. The first way would be for all students to first see the biology module. The students could then press NEXT and move from the biology module to the Math module. Pressing BACK from the Math module would return the students to the Biology module.

This method is called "structured" because all of the students are forced to follow the same structure. The structured method is illustrated below.



Browsing Curricula

The second way to progress between modules is the "browsing" method. This method allows students to choose which module they will see next. In the "browsing" method, an index module is used which lists the other modules as modules. The following illustration is an example of a "browsing" curriculum.



In this example, if the student is in the Main Index module and presses **a**, the student will be taken to the Biology module. Likewise, if the student is in the Main Index module and presses **b**, the student will be taken to the Math module.

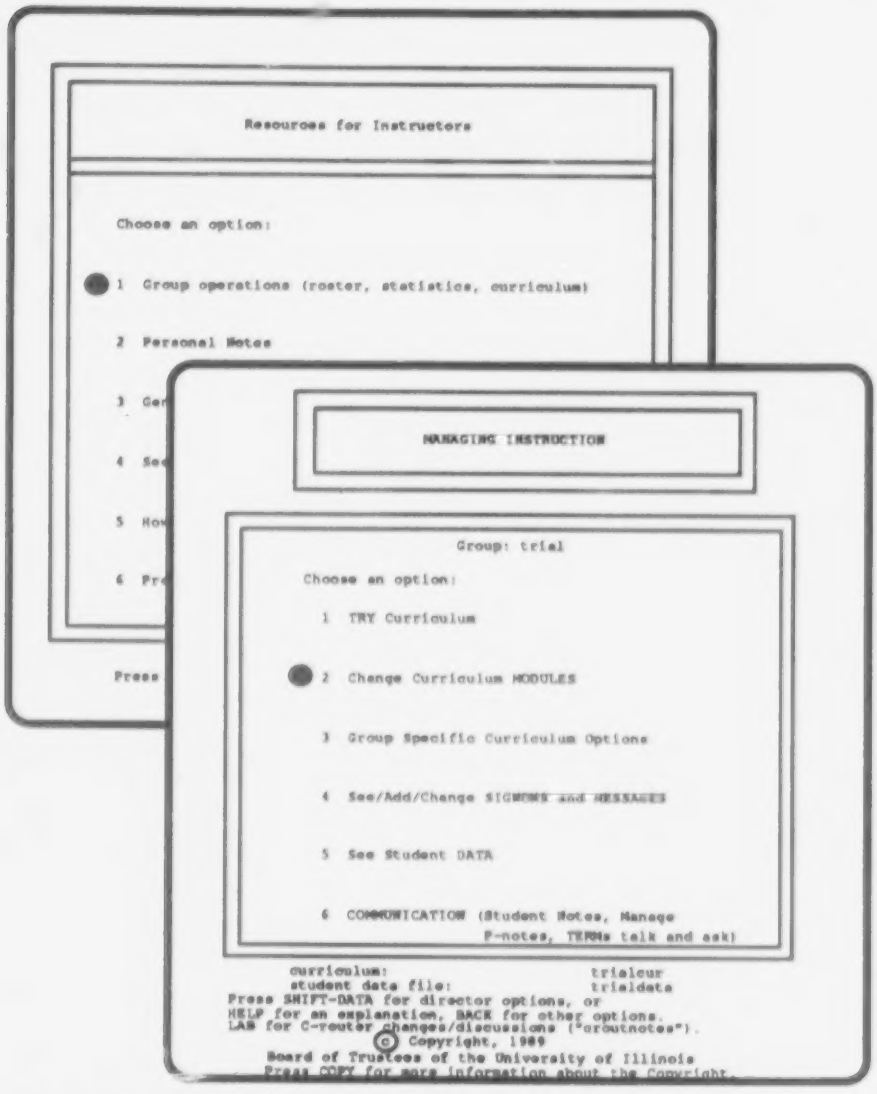
If the student presses BACK from either the Biology module or the Math module, the student will be returned to the Main Index module.

Now, you have some ideas about how to organize your curriculum. It is best to organize your curriculum first on paper. Once you have your curriculum organized on paper, you are ready to start entering the curriculum into the computer. This is called editing the curriculum.

Your group must be created and all of the connections made before you can edit your curriculum. To create a group and to make all of the connections, see the chapter of this manual titled "Creating Your Files".

Instructors can see their group by choosing option **1 (Group Operations)** from the *Resources for Instructors* display. This will take instructors to the *Managing Instruction* display. (Authors will go directly to the *Managing Instruction* display after typing the group name on the *AUTHOR MODE* display.)

Choose option **2 (Change CURRICULUM)** to edit your curriculum.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
MANAGING INSTRUCTION
Group: trial
Choose an option:
1 TRY Curriculum
2 Change Curriculum MODULES
3 Group Specific Curriculum Options
4 See/Add/Change SIGNS and MESSAGES
5 See Student DATA
6 COMMUNICATION (Student Notes, Manage P-notes, TERMs talk and ask)
curriculum: trialcur
student data file: trialdata
Press SHIFT-DATA for director options, or
HELP for an explanation, BACK for other options.
LAB for C-router changes/discussions ("croutnotes").
© Copyright, 1989
Board of Trustees of the University of Illinois
Press COPY for more information about the Copyright.

When you first enter the curriculum editor, you will be asked for the name of the curriculum (and you may also be asked for the WRITE records codeword for the curriculum) . (The name of the curriculum is available on the bottom of the *Managing Instruction* display.)

If you want to look at the curriculum without changing it, you can press LAB after typing the curriculum name. If it asks you for a codeword,you can then specify the READ records codeword. The word INSPECT will then be displayed in the upper right corner of your display. This means that you can look at the curriculum, but you can't change the curriculum.

The following display is the main index page for *Editing a Curriculum.*

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

CHAPTER 2: CREATE/EDIT A MODULE

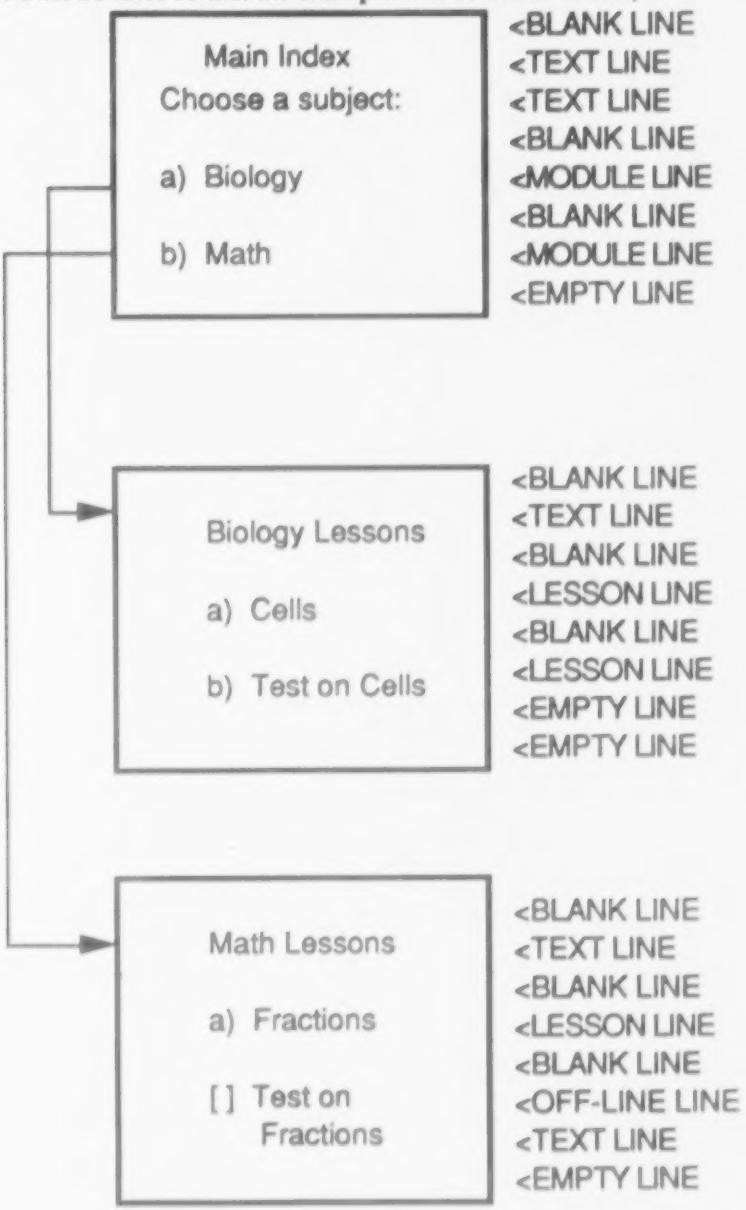
The first step when creating a new curriculum is to create a new module. When you edit a module, you are creating the display that the student will see and the progression of lessons and modules that the student will study.

Editing a module is similar to writing a note in *AUTHOR MODE* on The NovaNET system.. If you are not very familiar with the notes editing options (for example **i** to insert, **r** to replace), then you should press the HELP key and practice editing in the help lesson. You should also complete all of the chapters in the section of this manual titled "Getting Started: A Step-by-step approach".

When you are ready to edit a module, choose option **1 (EDIT a module)** to create a new module. (This option also lets you change an existing module.) After choosing option 1, you need to specify the name of the module. Choose a name that is unique and will easily identify the purpose of the module.

TYPES OF LINES

A module consists of 26 lines. There are 6 different types of lines in a module. Let's take a look at our sample browsing curriculum again in order to illustrate the different types of lines. (Note: these modules are much smaller than 26 lines so that the example will be easier to see.)



The 6 types of lines are:

LESSON lines	for entering lessons
MODULE lines	for entering modules
OFF-LINE lines	for entering off-line assignments
TEXT lines	for giving the student directions or other messages
BLANK lines	for spreading out the display to make it more readable
EMPTY lines	for lines not used at bottom of module

Notice that the "Test on Cells" in the Biology module is considered a lesson line. This is because tests on the computer are really normal lessons. The student goes to the lesson (test), finishes the lesson (test), and then a score for the lesson (test) is returned to the student data file.

Notice also that the off-line assignment in the "math" module takes up two lines in the module. The first line is an OFF-LINE line. The second line is a TEXT line. In the OFF-LINE line, the name of the assignment is specified. Since there is not a second assignment for the second line, the second line is considered a TEXT line rather than an OFF-LINE line.

EDITING DIRECTIVES

There are several different editing modes. An editing mode allows you to enter new information into the module. To enter an editing mode, you need to type an editing directive. The following editing directives are used for the most common *C-router* editing modes:

editing directive		editing mode
I	(or i)	for Inserting TEXT lines
L	(or l)	for adding LESSON lines
M	(or m)	for adding MODULE lines
O	(or o)	for adding OFF-LINE lines

You can enter an editing mode when the arrow is in the upper right corner of the screen (top arrow). To enter an editing mode, type the letter of the editing directive followed by the line number of the line that you want to insert after. For example: I4 inserts text after line 4. Press NEXT after typing the line number.

After you press NEXT, the arrow will move to the module display and you can enter new information into the module.

If you press NEXT after entering the information, you will go to the next line in the module and remain in the same editing mode.

If you press BACK after entering the information, you will return to the top arrow and can change editing modes.

To enter a blank line, use any of the above modes, and press NEXT without typing anything on the line.

If you would like the text on a line to be centered, press SHIFT-DATA after typing the last character. In other words, press SHIFT-DATA instead of pressing NEXT and BACK. For example, if you entered a line:
Welcome to the NovaNET system.
and then press SHIFT-DATA, the line would like:

Welcome to the NovaNET system.

LIST OF EDITING DIRECTIVES

Besides entering new information into the module, you also need to be able to change existing information, delete information, insert graphics, specify branching based on function keys, and change the type of the module. The following list shows the complete set of *C-router* editing directives. This list is also available by pressing HELP when editing a module.

directive	action
I#	Insert text after line #
I5	Insert text after line 5
I	Insert text after line 1
L#	Insert Lesson(s) after line #
L5	Insert Lesson(s) after line 5
M#	Insert module(s) after line #
M20	Insert module(s) after line 20
O#	Insert Off-line assignment(s) after line #
O3	Insert Off-line assignment(s) after line 3
C#	Insert Curriculum after line #
C9	Insert Curriculum after line 9
R#	Replace line #
R19	Replace line 19
D#-#	Delete lines # through # (SHIFT-HELP)
D5-20	Delete lines 5 through 20
D20	Delete line 20
D-20	Delete lines 1 through 20
D	Delete line 1
S#-#	Save lines # through # in save buffer
S5-20	Save lines 5 through 20
A#-#	Append lines to end of save buffer
A-8	Append lines 1 through 8 to end of save buffer
IS#	Insert saved lines after line #
IS8	Insert saved lines after line 8
F	Forced Exit from module
N	Replot the display
G	Graphics (boxes, circles, arcs, lines, vectors, sized/rotated text)
DATA	List lessons and modules referenced by current module
K	Specify module to go to if function key is pressed

T	Specify type of module (Index, Sequence, Sequence with review)
SHIFT-NEXT	Store current module
SHIFT-BACK	Exit current module without storing changes

DELETING LINES

After typing most editing directives at the top arrow, you must press NEXT. The only exception to this is for deleting lines. Since the deletion action is more drastic than any of the other options, you must press SHIFT-HELP (instead of NEXT) after typing the deletion. For example, to delete line 8, type **D8** and then press SHIFT-HELP.

ADDING LESSONS, OFF-LINE ASSIGNMENTS, MODULES, AND CURRICULA

When inserting lessons, off-line assignments, modules, and curricula, you must supply two pieces of information.

1. The first piece of information is the "filename" (or "off-line" name, "module name", or "curriculum name").
   The filename is the exact name that you must supply in order to access the lesson. The off-line name is a name that you use to reference the off-line assignment. Likewise, the module name is the exact name that you use to specify a module. The curriculum name is the name of a *C-router* curriculum file. The student will never see this name. After entering the name, press NEXT.

2. The second piece of information is a description
   At the second arrow type the "File title" (or "Off-line title", "Module title", or "Curriculum Title"). The title is a description of the lesson (or off-line assignment, module, or curriculum) and the title will be displayed to the student.

USING A LESSON MORE THAN ONCE IN A CURRICULUM

You can use a lesson more than one time in a curriculum. However, *C-router* will combine all the student performance data for that lesson into one lesson entry. For example, suppose a student entered lesson "fractions" once from the "math" module and once from the "review" module. When you go to see the performance data for module "math", the display will indicate that the student studied lesson "fractions" two times.

PASSING ARGUMENTS TO A LESSON

Some lessons will require extra information with the filename. This extra information is called "arguments". For example, a lesson may want you to give it a number which indicates the student's level. So, a level of 1 may indicate that the student needs simple problems, a level of 2 may indicate that the student is ready for intermediate problems, and a level of 3 may indicate that the student is ready for advanced problems.

Most lessons will not be expecting arguments. The NovaNET lesson catalog will mention arguments for those few lessons which do use arguments.

If you need to include arguments for a lesson, include the arguments with the filename. The arguments should be enclosed in parentheses and separated by commas. For example: "test(1,54)" will send two arguments to lesson "test".

C-router considers entries with the same lesson name but different arguments to be different entries. Therefore, separate student data is saved for each entry. For example, *C-router* will save separate scores for the lessons "fractions(1)" and "fractions(2)", but will save only one set of scores for two occurrences of "fractions(2)".

GOING TO A SPECIFIED UNIT IN A LESSON

C-router allows you to specify a programming unit in the lesson where students should start. Most users won't use this feature, because most *C-router* users did not program the lessons that they are using. However, if a programmer or the NovaNET catalog of lessons indicate unit names, then you can use this feature.

To do this, place a comma between the lesson name and the unit name. For example:

lessnam,one	goes to	lesson: unit:	"lessnam" "one"
again,new	goes to	lesson: unit:	"again" "new"
again,two(1,2)	goes to	lesson: unit:	"again" "two" and passes two arguments.

C-router considers entries with the same lesson name but different units to be different entries. Therefore, separate student data is saved for each entry. For example, *C-router* will save separate scores for lessons "again,new" and "again,two(1,2)", but will save only one set of scores for two occurrences of "again,three".

CONDITIONAL LESSONS

You may want your students to go to different lessons depending on their past performance. You can do this with conditional lessons.

To specify a conditional lesson:

1. Use the **same editing directive** to enter conditional items as you use to enter normal items.

   For example:

   L4 enters a conditional (or regular) lesson after line 4.

2. When the top arrow asks you for a "Filename", press **SHIFT-LAB** instead of entering a name.

3. You will then be asked to specify the "File title". The same title will be displayed for all conditions.

4. After you enter the title, you will be taken to a table where you can specify the conditions. More information about the conditional table is available in the chapter "Example using conditions".

EXAMPLE:

Let's assume that the students have taken a pre-test lesson called "pretest". If your students receive a score of less than 70 on the pre-test, you want them to go to lesson "remedial". If they score between 70 and 90, they should go to lesson "review". Finally, if they score above 90, they should go to lesson "advanced".

To add the conditional lesson entry:

- edit the module which will contain this conditional entry
- type "L" followed by the line number which you want to insert after, then press NEXT
- press SHIFT-LAB instead of typing the filename
- enter the lesson title like "Drill on Mixed Fractions" and press NEXT
- then fill in the conditional chart. More information about the conditional table is available in the chapter "Example using conditions". Your conditional chart would look like:

```
If:   score(pretest)<70
then go to lesson(remedial)

If:   score(pretest)<90
then go to lesson(review)

Otherwise:
then go to lesson(advanced)
```

When the student chooses the option for "Drill on Mixed Fractions" s/he will be sent to the appropriate lesson. The student will be returned to the module display after completing the conditional lesson.

CONDITIONAL MODULES

Sometimes, you may want your students to go to a different module depending on their past performance. You can do this with conditional modules lines.

To enter a conditional module line:

1. Use the **same editing directive** to enter conditional items as you use to enter normal items.

   For example:

   M10 enters a conditional (or regular) module line after line 10.

2. When the top arrow asks you for a "Module name", press **SHIFT-LAB** instead of entering a name.

3. You will then be asked to specify the "Module title". The same title will be displayed for all conditions.

4. After you enter the title, you will be taken to a table where you can specify the conditions. More information about the conditional table is available in the chapter "Example using conditions".

EXAMPLE:

Let's assume that you created two math modules, one module has games and is called "math games" and the other module has no games and is called "math lessons". If your students have been signed on for less than 30 minutes for this session, you want them to go to the module "math lessons". However, if they have been signed on for 30 minutes or more, you want them to go to the module "math games".

To add the conditional module entry:

- edit the module which will contain this conditional entry
- type "M" followed by the line number which you want to insert after, then press NEXT
- press SHIFT-LAB instead of typing the module name
- enter the module title like "Math" and press NEXT
- then fill in the conditional chart. More information about the conditional table is available in the chapter "Example using conditions". Your conditional chart would look like:

  If: time for session≥30
  then go to module(math games)

  Otherwise:
  then go to module (math lessons)

When the student chooses option "Math", s/he will be sent to the appropriate module. The default back progression will still be in effect after the student goes to the conditional module. Therefore, pressing the BACK

key from either module "math" or module "math games" will return the student to this module.

ACCESSING MORE THAN ONE CURRICULUM

Most groups use only one curriculum. The name of the curriculum is shown on the *Managing Instruction* display. Let's call this curriculum the *primary* curriculum.

However, you can specify that your students can look at, and study, other curricula. Let's call these curricula the *secondary* curricula.

After studying a lesson in the secondary curriculum, the students will be returned back to the the primary curriculum. *C-router* will only save the total time that the students spend in the secondary curriculum. No data will be saved for individual lessons in the secondary curriculum.

Use the editing directive **C** to add a secondary curriculum. You will have to specify the name of the curriculum file and a title for the curriculum. The curriculum file should have a blank read records codeword. A list of *C-router* curricula is available in the NovaNET lesson catalog under "Curriculum Management (NovaNET)".

To add a secondary curriculum:

1. First obtain **permission** from the owner of the curriculum. You can usually ask permission in a p-note.

2. Enter the *C-router* **curriculum editor** to edit your own curriculum (your primary curriculum).

3. Edit the **module** which will contain the reference to the secondary curriculum.

3. Use the **C** editing directive. Type C followed by the line number which will precede the new line.

4. When the top arrow asks for the curriculum name, enter the name of the **curriculum file**.

5. When the top arrow asks for the **curriculum title**, enter the title that you want your students to see.

EXAMPLE:

Suppose you want your students to be able to browse through the curriculum "c1spellvoc" which was developed by Susan Hartstirn at Parkland College.

1. Obtain permission from Susan, or the current owner of the file.

2. Enter the *C-router* curriculum editor to edit your own curriculum (your primary curriculum).

3. Edit the module which will contain the reference to the secondary curriculum.

3. Use the C editing directive. Type C followed by the line number which will precede the new line.

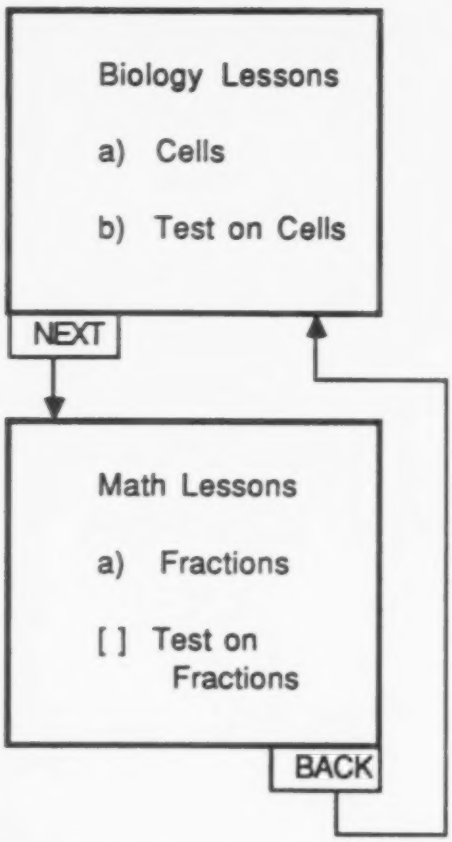
4. When the top arrow asks for the curriculum name, enter *c1spellvoc*.

5. When the top arrow asks for the curriculum title, enter the title that you want your students to see. For example: Spelling and Vocabulary.

When your students choose the "Spelling and Vocabulary" option, they will be branched to the initial module for that curriculum. They can move around to the other modules in the curriculum and can study any of the lessons in the curriculum. After studying a lesson in the Spelling and Vocabulary curriculum, they will be returned back to the primary curriculum. *C-router* will only save the total time that the students spend in Spelling and Vocabulary. No data will be saved for individual lessons in the Spelling and Vocabulary curriculum.

USING FUNCTION KEYS

Module lines allow you to move from one module to another by pressing an alphabetic key (a - z). You can also move to another module by pressing a function key. The following curriculum uses the NEXT and BACK function keys to progress between modules.



The NEXT and BACK keys are examples of function keys. Other function keys are available for branching the students from one module to another. In every module, a student can press one of ten different function keys to go to one of ten different modules. The following function keys are available:

ALLOWABLE FUNCTION KEYS

NEXT	SHIFT-NEXT
BACK	SHIFT-BACK
LAB	SHIFT-LAB
DATA	SHIFT-DATA
HELP	SHIFT-HELP

DEFAULT BACK PROGRESSION

C-router automatically maintains a record of the student's progression through the modules. You can use this record for the "default back progression". This means that if the students press the BACK key, they will automatically be taken to their previous module.

When you first create a module, it is set to use the "default back progression". If you want to use the "default back progression", you usually will not have to specify the "back module".

However, sometimes you may want to set the BACK module. Some cases where you may want to set the BACK module are:

1) when you don't want to default to the previous module
2) for the first module in the curriculum (since there will be no previous module)
3) if there could possibly be more than 10 levels of modules since *C-router* keeps a record of only the last 10 modules.

SPECIFYING WHERE TO BRANCH FOR FUNCTION KEYS

To specify where to branch to if a function key is pressed, **press K** while you are editing the module. (K stands for key.) You will then see the following table.

```
FUNCTION KEY TABLE for module "algebra1"

| 0 | NEXT                                  |
| 1 | SHIFT-NEXT                            |
|   |                                       |
| 2 | BACK                          (default) |
| 3 | SHIFT-BACK                            |
|   |                                       |
| 4 | DATA                                  |
| 5 | SHIFT-DATA                            |
|   |                                       |
| 6 | LAB                                   |
| 7 | SHIFT-LAB                             |
|   |                                       |
| 8 | HELP                                  |
| 9 | SHIFT-HELP                            |

Type the number of the key that you want to specify.
(type 0-9.)  Or press BACK to return to module display,
SHIFT-NEXT to store module with these changes.
```

To specify a module:

1. Press the **number of the key** that you want to change.
2. Type the **name of the module** that you want to branch to.

The *default* by the BACK key indicates that the default back sequencing is in effect. You can turn this off by pressing 2 to change the BACK key sequencing.

SPECIAL FUNCTIONS FOR FUNCTION KEYS

The function keys can perform other special functions in addition to taking the student to another module.

To set a special function for a function key:

1. Type **K** (for function Keys) when editing the module.
2. Next, **choose the function key** for which you want the special function.
3. Finally, press **LAB** for special options and choose the appropriate **special function**.

The five special functions are:

1) See Lesson Data

This special function allows the students to see their signon data and progress data. For example, suppose you specified this function to be active for the DATA key. When the students press DATA, they will see their signon data like: amount of time they have been on the computer, days on the computer, and sessions on the computer. If there is a student data file associated with the group, they'll also see scores that they have earned for the lessons, and whether or not they have completed the lessons. The following automatic message is shown to the students to tell them that this key is active:

> Press (appropriate key name) to see your data.

2) See File/Module name

This special function allows users to see the filenames or module names associated with the lessons or modules in the current module. This is useful for instructors who want to know the filename for a lesson in the curriculum. There is no automatic message shown to the students to tell them that this key is active. Therefore, you may want to insert a TEXT line that says something like "Press LAB for filenames and module names.".

3) No Exit

The third special function "NO EXIT" means that the student cannot exit from this module when the specified key is pressed. This would usually be the same as leaving the entry blank. However, using NO EXIT will allow you to override a Universal Key setting. (Universal Keys are explained later in this manual.)

4) Conditional Branching

The fourth special function, "Conditional Progression", allows the instructor to set conditions which the student must satisfy before being allowed to leave the module. If you choose this option, you must fill in a table which specifies the conditions. See the chapter "Example using conditions" for more information on this table.

EXAMPLE:

Suppose you have a lesson called "fractions". If the students complete lesson "fractions", you want them to go to module "decimals". If they try fractions more than 3 times, you want them to go to a module called "review fractions". Otherwise, you want them to remain in the current module. The conditional table would be:

If: done(fractions)
then go to module(decimals)

If: tries(fractions) > 3
then go to module(review fractions)

If none of the above conditions are met, they will remain in the current module.

If they do go to either module "decimals" or the module "review fractions", the default back progression will still be in effect. Therefore, if they press BACK from one of those modules, they will be returned to this module.

5) Go to previous module

The last special function allows you to tell the student to go to the previous module. The "Go to previous module" is useful if there are several ways to get to the current module and you want to send the student back where s/he came from.

AUTOMATIC MESSAGES

There are three messages that are automatically displayed by *C-router* if certain function keys are active:

1. if there is a NEXT module, then the message
   Press NEXT to continue
   will automatically be displayed.

2. if there is a BACK module, then the message:
   Press BACK for previous display
   will automatically be displayed.

3. if the special function to show the student's data is used, then the message:
   Press (appropriate key name) to see your data
   will automatically be displayed.

There are no other automatic messages for function keys. If you want to display a message to the students for something else, you will have to insert a text line into your module which contains the message. For example, "Press SHIFT-BACK to return to the main index."

TYPES OF MODULES

There are three types of modules. When a module is created, it is automatically set to the "INDEX" type.

To change the type of a module, press T when editing the module.

INDEX MODULES

All of the modules which you have seen so far are called INDEX modules. This type of module always presents the same display to the student. Each lesson line and module line in the INDEX module is always displayed to the student, and the student can study the lessons and modules in any order. In the following example, the student can study the three lessons in any order.

```
Study these Lessons:

a)  Cells
b)  Plants
c)  Animals
```

The INDEX Module is the most common type of module. *C-router* will assume that all modules are INDEX modules unless you specify another type of module.

SEQUENCE MODULES

Another type of module is the SEQUENCE module. If the above example was a SEQUENCE module, the student would never see the words "Study these Lessons" or any of the three lessons.

When the student first enters the above SEQUENCE module, s/he will immediately be sent to the lesson "Cells" without seeing the module display.

When the student completes lesson "Cells", s/he will immediately be sent to the lesson "Plants" without going to the module display. Likewise, when the student finishes lesson "Plants", s/he will be sent immediately to "Animals".

When the student completes the last lesson, s/he will be sent to either the NEXT module (if a NEXT module is specified), or to the previous module (if there was a previous module or if a BACK module is specified), or signed off if no NEXT or BACK module exists. (If BACK is available, the student can press BACK at any time to review.)

Modules (as well as lessons) can be included in the sequence. For example, in the module above, you could include a module line called "More Animals". The student will be sent directly to module "More Animals" when s/he completes the previous lesson. When the student leaves module

"More Animals" by pressing NEXT, module "More Animals" is considered completed. Therefore, after pressing NEXT, the student will be sent to the next lesson or module in the sequence. Use the conditional options to restrict when the NEXT key is active.

SEQUENCE WITH REVIEW MODULES

The SEQUENCE WITH REVIEW module is similar to the SEQUENCE module. However, a SEQUENCE WITH REVIEW module allows the student to review any lesson or module line which s/he has already studied.

When the student first enters the sample module as a SEQUENCE WITH REVIEW module, s/he will be sent directly to lesson "Cells". The student will not see any of the text associated with the module.

As soon as the student finished lesson "Cells", s/he will be sent to the module display and the student will be able to choose to study either lesson "Cells" or lesson "Plants". The student will see the text in the module which is above and including the line which contains the "Plants" lessons.

After the student completes lesson "Plants", s/he will be able to choose any of the three lessons in the module and the student will see all of the text associated with this module.

After completing the first lesson or module line, the student can progress to any module available from the function keys. You can use "conditional modules" (explained earlier) if you do not want the student to progress until the module has been completed.

Modules (as well as lessons) can be included in the sequence. For example, in the module above, you could include a module line called "More Animals". When the student leaves module "More Animals" by pressing NEXT, module "More Animals" is considered completed. Therefore, after pressing NEXT, the student will be able to select the next lesson or module in the sequence. Use the conditional options to restrict when the NEXT key is active.

SUMMARY OF MODULE TYPES

When a module is created, it is automatically set to the "INDEX" type.

To change the type of a module, press **T** when editing the module.

There are three types of modules:

INDEX Modules
This is the most common type of module. The student always sees all of the module display and can choose any lesson line or module line at any time.

SEQUENCE Modules
The student never sees a module display and is sent directly to the next lesson or module as soon as the current lesson or module is completed.

SEQUENCE WITH REVIEW Modules
The student can choose either the next lesson or the next module line or any of the lessons or module lines which have already been studied. The student sees only the lines in the module that include and precede the next lesson or module line.

PRECAUTIONS FOR SEQUENCE AND SEQUENCE WITH REVIEW TYPES

If no data is being saved (for example, if there is no student data file or if the signon is a multiple), then the SEQUENCE and SEQUENCE WITH REVIEW modules will be treated as INDEX type modules.

For the SEQUENCE and SEQUENCE WITH REVIEW modules, use only lessons or modules which can be completed. In other words, the lessons must set "ldone" (give a *) and the users must be able to leave the modules by pressing NEXT. (For modules, you can make the exit via NEXT be conditional so that you can specify what the user needs to do in order to complete the module.)

There is a somewhat complicated way to work around the problem of including a lesson which doesn't set "ldone" in a sequence of lessons. Let's assume you want to add a lesson "tryless" to a sequence in module "list". But, lesson "tryless" doesn't set "ldone". To do this

- put the lesson "tryless" into a separate module called "trymod".
- specify that the NEXT key for module "trymod" should allow the student to leave conditionally based on spending a certain amount of time time in lesson "tryless". When the student presses NEXT to leave module "trymod", module "trymod" will be marked as completed.
- finally, enter module "trymod" as an entry in the sequence in module "list"

FORCED EXIT

Occasionally you may want to force students out of a module. For example, you may not want them to continue to study on the computer if they have been signed on for more than 45 minutes. Or, you may want to force them into a remedial unit if the score on a post-test was less than 80%. This can be done by using "forced exit".

To specify "forced exit", type **F** while editing the module.

A conditions table (just like the table for conditional progression) can be made for forcing the student to exit a module. (See the chapter "Example Using Conditions" for more information on conditions.) If a forced exit condition is met, the student would be taken directly to the new module without seeing the module display for the current module.

For example, suppose a student is in module "review" and there is a forced exit of:

If: time for session > 45
then go to module: signoff

If the student has spent more than 45 minutes on the system since the last time s/he signed on, then the student will be sent directly to module "signoff." Module "signoff" may have only a message that says "Please sign-off".

Suppose the student leaves module "review" by a forced exit. In this case, the module "review" will not be saved in the record of previous modules. Therefore, module "review" will not be used for the "default back progression", and pressing the BACK key will not automatically take the student back to module "review".

See the chapter "Example using conditions" for more information on conditional branching.

GRAPHICS

You can draw lines, circles, boxes, vectors, and arcs; and you can write in sized or rotated text by using the graphics options. The graphics will always be displayed after the regular text of the module. Using graphics will slow down the plotting speed of the module. For this reason, you should use graphics only if they are necessary. A good use of graphics would be to use boxes to separate information on a complex display.

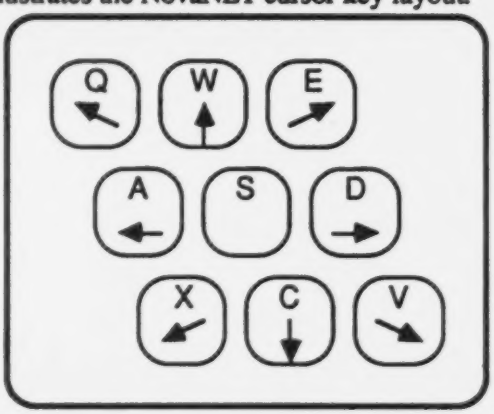
To create or change a graphical display:

1. Type **G** at the top arrow.

2. Type a **name for the graphic.**
   Each graphic display must have a unique name. A module can only have one graphic display associated with the module. However, it is possible to share one graphic with more than one module.

You can place the graphic anywhere on the display. To place a graphic, use the cursor keys to move the cursor around. The cursor is a "+" and the initial placement is in the upper left corner of the screen.

The cursor keys are the keys which surround the letter **s** on your keyboard. The following illustrates the NovaNET cursor key layout.



Every time you type a cursor key, the cursor will move 16 dots in the corresponding direction. You can also move 1 dot at a time by pressing the SHIFT-key at the same time as you press the corresponding cursor key. Therefore, to move the cursor to the right, you would press the **D** key and to move the cursor upwards, you would press the **W** key.

When you are in the graphics editor, you will see these instructions at the bottom of the screen.

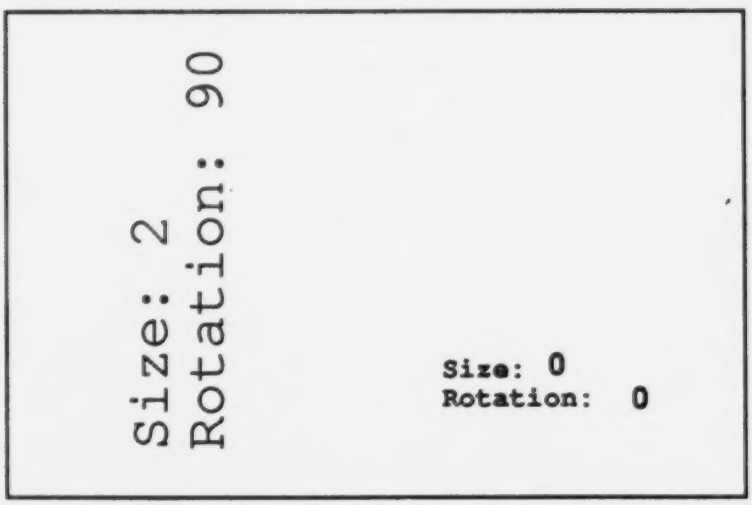
```
t-text        l-lines       s-skip       SHIFT-NEXT to store
c-circle      v-vector      b-box        COPY to copy
k-arc         h-color                    HELP available
```

text

To enter text:

1. Position the cursor and then type **t**.
2. Specify the **size and rotation.**
3. Press the **CR** key to enter another line of text after the current line.

Example:



In the above box, the writing on the right is in size 0 with no rotation. The writing on the left is in size 2 with a 90 degree rotation. In order to rotate, the size must be something other than size 0. Size 0 and size 1 look the same, but size 1 can be rotated. Size 0 also plots faster than size 1.

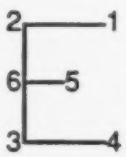
line drawings

You can draw any picture by plotting a series of lines.

To draw a series of lines:

1. Move the cursor to the first location and type **s** for "skip".
2. Move the cursor to the next point and type **l** for "line".

Example:



To draw this "E":

move cursor to "1", press "s"
move cursor to "2", press "l"
move cursor to "3", press "l"
move cursor to "4", press "l"
move cursor to "5", press "s"
move cursor to "6", press "l"

circles

To draw a circle:

1. Move the cursor to the location that would be the center of the circle, and press **c**.
2. Choose whether you want a **continuous (solid line) curve or a broken (dashed line)** curve.
3. Move the cursor to a point on the edge of the circle and press **c** again.

arcs

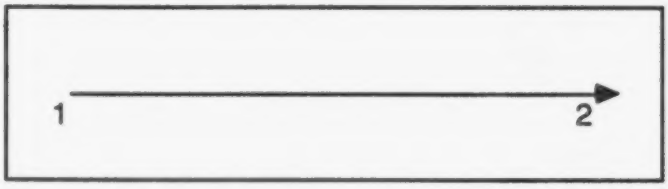
To draw an arc:

1. Move the cursor to the start of the arc and press **k**.
2. Choose whether you want a **continuous or broken arc**.
3. Move the cursor to any point on the arc (but not an end point), and press **k**.
4. Move the cursor to the second end point and press **k** again.

vectors

To draw a vector:

1. Move the cursor to the **tail of the vector** (point 1 below) and press **v**.
2. Move the cursor to the **head of the vector** (point 2 below) and press **v** again.



boxes

To draw a box:

1. Move the cursor to one **corner** of the box and press **b**.

2. Choose the thickness.
   For example, a thickness of "2" means that the edge of the box will be two lines thick.

3. Move the cursor to the **opposite corner** of the box and press **b** again.

color

To change the color of text or drawings:

1. Press **h**.

2. You will then see a list of colors. Type the **name of the color** that you want to use.

storing graphics

When you are happy with the graphical display, press SHIFT-NEXT to store the graphics. Then, the graphical directions at the bottom of the display will be erased, and you will be able either to continue editing the module, or press SHIFT-NEXT to store the module.

copying graphics

You can copy a graphical display from the same or a different curriculum.

To copy a graphic:

1. Press **COPY**.

2. Type the name of the curriculum, the READ codeword, and the name of the graphic to copy.

deleting parts of the graphic

You can erase part of a graphic by:

1. Elect to plot the existing graphic one item at a time.

   (When you try to re-edit an existing graphic, you are asked whether you want to plot the graphic all at once or whether you want to plot the graphic one item at a time. Choose to plot the graphic one item at a time.)

2. Delete any item after it is plotted by pressing **ERASE** before the next item is plotted.

CHAPTER 3: EXAMPLE USING CONDITIONS

You can specify that the student will go to a different module or to a different lesson depending on the student's past performance.

To make a function key branching conditionally:

- Type **K** (for function Keys) when editing the module.
- Next, **choose the function key** for which you want the special function.
- Press **LAB** for special options and choose the appropriate **special function.**
- Choose option **4** for Conditional Branching. You will then be taken to the conditional chart which is described on the following pages.

To insert a conditional module line:

- edit the module which will contain this conditional entry
- type "M" followed by the line number which you want to insert after, then press NEXT
- press SHIFT-LAB instead of typing the module name
- enter the module title like "Math" and press NEXT
- then fill in the conditional chart which is described on the following pages.

To insert a conditional lesson line:

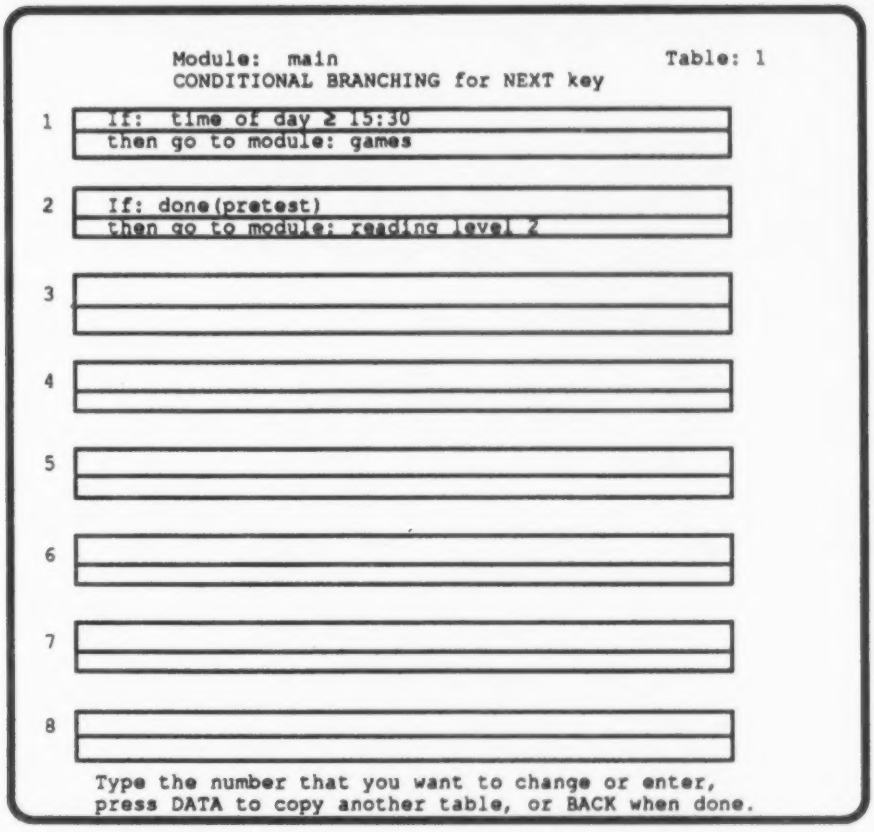
- edit the module which will contain this conditional entry
- type "L" followed by the line number which you want to insert after, then press NEXT
- press SHIFT-LAB instead of typing the filename
- enter the lesson title like "Introduction to Decimals" and press NEXT
- then fill in the conditional chart which is described on the following pages.

You can also set conditions which may force the student to leave a module before the module display is plotted. This is called Forced Exit. To do this:

- Type F (for Forced Exit) when editing the module.
- You will be taken to the conditional chart which is described on the following pages.

EXAMPLE for Function Keys:

Suppose that you have a module which contains a lesson called "pretest". When the students complete the pretest, you would like them to progress to the module "reading level 2". However, many of your students also like to use the computer to play games after regular class hours. So, you would also like them to be able to go to module games if it is after 3:30 in the afternoon. The conditional chart for this situation is shown below.

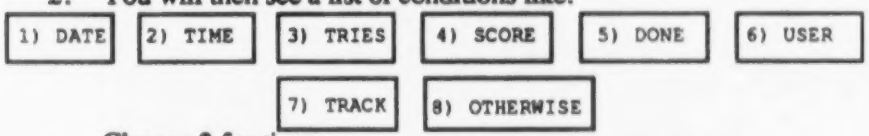


You would not put the "done(pretest)" option first, because if it is after 3:30, you want them to go to module "games" rather than the reading module. Since the conditions are evaluated in the order listed, you should organize them so that the first true condition is where the student should be branched.

To construct the conditions chart, follow the directions at the bottom of the screen. The following steps outline how you would reconstruct the above chart.

For the first entry in the chart:

1. Type **1** for entry 1.
2. You will then see a list of conditions like:

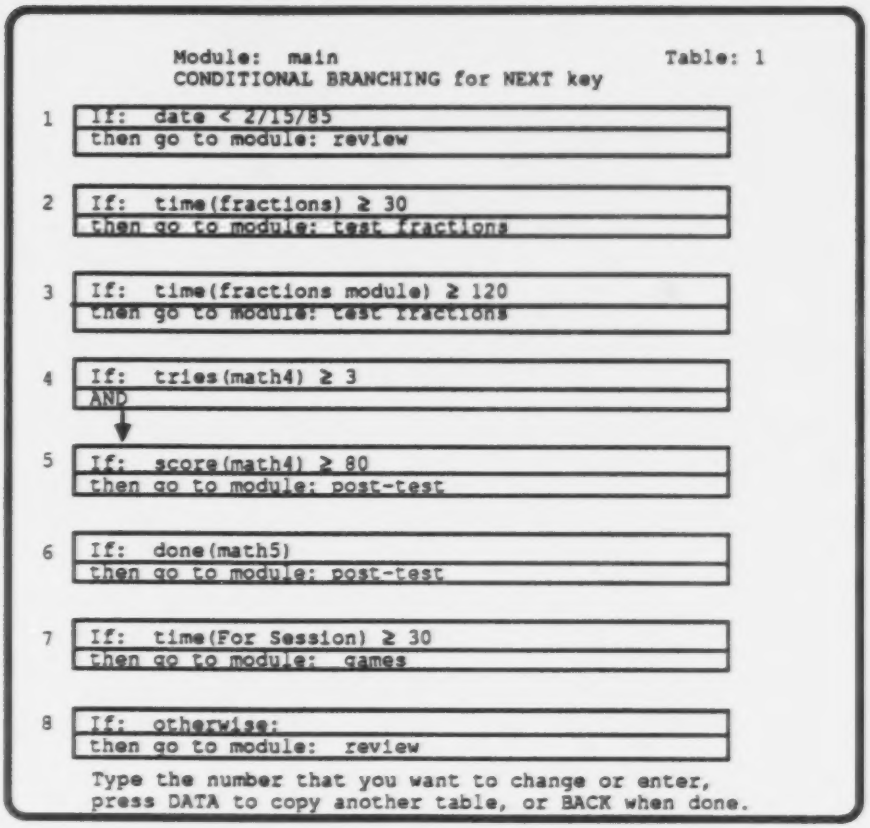


   Choose **2** for time.
3. You will then be asked to specify a type of time. Choose **Time of Day**.
4. You will then be asked to specify the hour. Enter **3**.
5. You will then be asked to specify AM or PM. Choose **PM**.
6. Next you will need to enter the minute. Enter **30** (for the 30 in 3:30).
7. Next you will need to choose whether you want "before the specified time" or "after the specified time". Choose **after the specified time**.
8. Finally you will be asked to specify the module name. Enter **games**.

For the second entry in the chart:

9. Type **2** for the second entry.
10. You will then see the list of conditions, choose **5** for done
11. You will be asked if you want the done to be for a lesson or a module. Choose **lesson**.
12. Next you will have to specify the lesson name, enter **pretest**.
13. Finally, you will have to specify the module name. Enter **reading level 2**.

Up to 8 conditional branches can be specified for each entry. The following display shows a sample conditional chart.



Condition #1 specifies that if today's date is before 2/15/85, the student will be able to go to module "review".

If condition #1 is not true (in other words, if today's date is not before 2/15/85), condition #2 is evaluated. Condition #2 says that if the student has spent 30 minutes or more in lesson "fractions", the student can go to module "test fractions".

If conditions #1 and #2 are not true, condition #3 will be evaluated. This condition says that if the student has spent 120 minutes or more in module "fractions module", the student can go to module "test fractions".

Condition #4 and condition #5 will be evaluated if none of the previous conditions are true. Since these conditions are joined by the AND, both conditions must be true in order for the student to be branched to the specified module. If both conditions #4 and condition #5 are true, the student will go to module "post-test".

Condition #6 is evaluated if none of the previous conditions are true. Condition #6 says that if the student has completed lesson "math5" (if he gets a *), the student can go to module "post-test".

Condition #7 is evaluated if none of the previous conditions are true. Condition #7 says that if the student has spent 30 minutes on the computer for this session (since the last time s/he signed on), the student can go to module "games".

Finally, condition #8 is evaluated if none of the previous conditions are true. The "otherwise" conditions says that if none of the other conditions are true, the student will go to module "review".

The following list shows the different types of conditions that you can set:

Type:	Examples: (*'ed conditions ignored by multiples)	
date	If: date > 2/15/85	
time	If: time(for lesson) < 50	*
	If: time(for module)≥120	*
	If: time for session≥34	
	If: time on system < 130	
	If: time≥3:30	
tries	If: tries(for lesson)≥3	*
	(number of times lesson was entered)	
	If: tries(for module) < 9	*
	(number of times module was accessed from signing on or from another module)	
score	If: score(for lesson)≥80	*
done	If: done(lesson)	*
	If: done(module)	*
	(done if the student exited the module by pressing NEXT)	
group	If: group = math	
signon type	If: signon=student	
track	If: track=pass (for Testing 1-2-3 tests)	
otherwise	If: none of the previously listed conditions are true	

EXERCISE FOR CONDITIONAL BRANCHING

Create a module named "timed". If a student has spent more than 2 minutes in the lesson "aid", the student should be able to press DATA and go to a module named "two minutes". If the student has spent less than 2 minutes in lesson "aid", the student should not be allowed to leave module "timed". However, users with instructor signons should be able to go to module "two minutes" after pressing DATA even if they have not been in lesson "aid" for 2 minutes. Also, be sure to set the initial module for the curriculum to "timed".

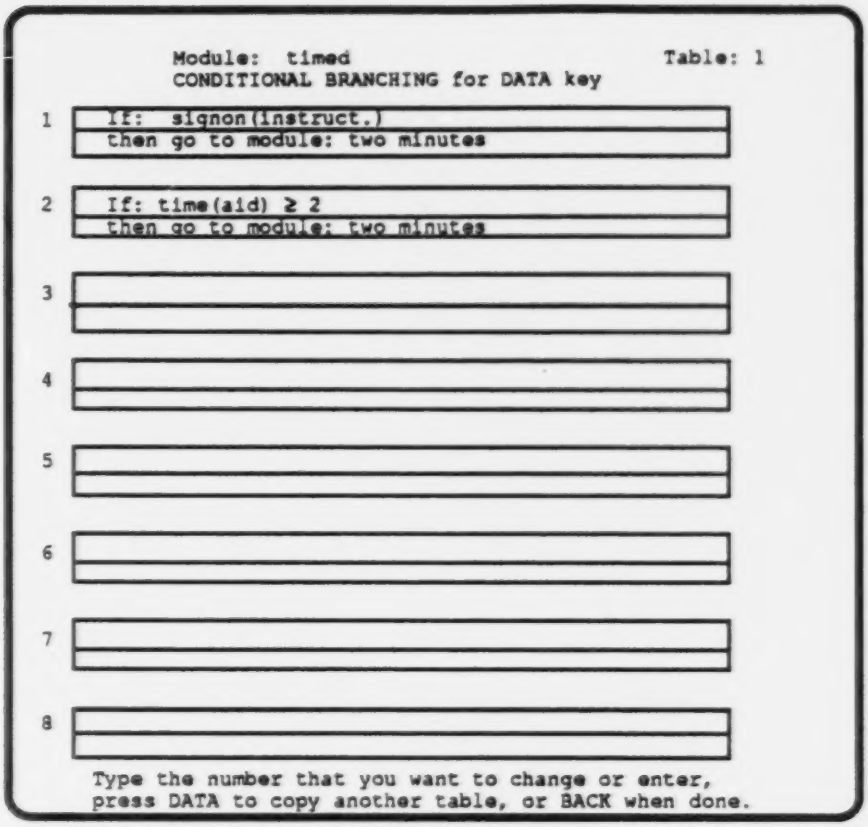
Try to set up this conditional situation and test it by:

- sign on with a newly created student signon and press DATA without going into lesson "aid". You should not be able to leave the module.
- then go into lesson "aid" for 2 minutes and try to leave the module by pressing DATA. (You should end up on a blank module display.)
- sign on with an instructor signon and try to leave the module by pressing DATA. (You should end up on a blank module display.)

If you have trouble getting this to work, look at the solution on the next page.

Solution

- **Create a module** named "timed".
- Enter **lesson "aid"** into the module.
- Press **K** to specify function keys
- Choose to specify where the student will go if s/he presses **DATA** (option 4).
- Instead of typing a module name, press **LAB** for **Special Options** then press **4** to specify **conditional** branching. You should now be able to fill in the conditional table. After you've filled in the conditional chart, it should look like the following:



- To fill in the condition for instructors:
  - Choose to specify **User**
  - Then choose **User type**

- To fill in the condition for time:
  - Choose to specify **Time**
  - Then choose to specify time for **Lesson** (since "aid" is a lesson)

Miscellaneous Information about Conditions

No conditions true

If you do not have an "otherwise" condition, and if none of the conditions are true, the student will not be allowed to exit this module by pressing the appropriate key.

Multiple or author signons or no student data file

The only conditions that are evaluated for a multiple or author signons (or a signon where there is no student data saved) are:

time for session
time for system
time of day
group
otherwise.

A signon which is not saving student data will just skip the other conditions.

Author or Instructor signons in group other than their own

If an author or instructor is in a group other than their own, *C-router* will not be able to determine the "time for session" or "time on system". Therefore, *C-router* will just skip those conditions.

Copy conditions
The same conditional table can be used more than once in a curriculum.

To copy a conditional table:

1. Press **DATA** to copy another table.

2. Type the **number of the table** that you wish to copy.

   Each conditional table is identified by a number and the number is specified when copying tables. If you look at the upper right hand corner of the conditional table display, you will see the table number which identifies the table for copying purposes.

CHAPTER 4: SPECIFY INITIAL MODULE

To specify which module the students should see when they sign on for their first session, use option **2 (Specify INITIAL module in curriculum)**.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

Every curriculum should specify an "initial module". You will need to enter the module's name when specifying the module.

The initial module is the default case for the curriculum. This means that this is the module that you would like the majority of students to see the first time they sign on.

Normally, if students have already been signed on, they will resume the next session with their last module. However, you can choose to have your students start every session with the initial module. To do this:

- Enter your **group**
- Choose **Group-Specific Curriculum Options**
- Choose **Start every session with Initial Module**

Initial Module for Specific Group

Sometimes you may have several groups sharing one curriculum. In this case, you may want different groups to start with different modules. You can do this by changing the initial module for each group.

To change the initial module for a particular group:

1. Instructors should enter ***Group Operations***, or Authors should enter their group by typing the group name on the *AUTHOR MODE* display and then pressing DATA.

2. Use the Group-Specific Options to change the initial module for that group.

Initial Module for Individual User

Sometimes you will want to change the module that an individual student will start, or resume, with.

To change which module an individual user should start with:

1. Instructors should enter ***Group Operations***, or Authors should enter their group by typing the group name on the *AUTHOR MODE* display and then pressing DATA.

2. Choose the option to **See/Add/Change Signons.**

3. Choose to **See or Change someone's signon** and enter the student's name.

4. Change the **current module** or **initial entry module** for that student.

For more information, see the chapter "Which module will the student see when s/he signs on?".

CHAPTER 5: UNIVERSAL FUNCTION KEYS

To specify function keys which will be active for ALL modules, use Universal Function Keys. To specify a Universal Function Key, use option **3 (Specify Universal Function Keys).**

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

For example, assume that you want SHIFT-BACK to always return the user to the module "main". Then, you could set the Universal SHIFT-BACK to module "main". This means that in any module in the curriculum, the student can press SHIFT-BACK and go to module "main".

After specifying a universal function key, you will be asked if you want to clear the pointers in all of the existing modules. For example, if you specify a Universal SHIFT-BACK, you will be asked if you want to clear the SHIFT-BACK pointers in all of the modules. If you answer "yes", any module that has a SHIFT-BACK pointer will have that pointer cleared. If you choose "no", none of the SHIFT-BACK pointers in the other modules will be cleared.

Specifications in the current module override the Universal Function Key specifications. For example, if the Universal SHIFT-BACK is set to module "main" and the SHIFT-BACK for module "chemistry" is "science", then the student will go to module "science" when s/he presses SHIFT-BACK from the module "chemistry".

Example:

Suppose you want SHIFT-BACK from all the modules to go to module "main". However, you don't want SHIFT-BACK to be active when the student is in module "main".

To do this:

1. Enter the Universal key table.
    a. Set the **Universal SHIFT-BACK** to module "main".
2. Edit module "main".
    a. Press **k** to set the **function keys** for module "main".
    b. In the function key table for module "main", choose to set the **SHIFT-BACK key**.
    c. Press **LAB** for **special functions** (instead of typing a module name).
    d. Choose the special function **NO EXIT**. (The NO EXIT setting in module "main" will override the Universal SHIFT-BACK setting. The student can still leave this module by any other function key which is active or the student can leave the system by pressing SHIFT-STOP.)

CHAPTER 6: RENAME/COPY/DELETE MODULES

RENAME A MODULE

To give a module a different name, use option **4 (RENAME a module)**.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

If you use this option, you do not need to worry about changing all of the places that refer to the old module name. For example, assume module "one" says press NEXT for module "two". If you rename module "two" to "math", you will not have to go back into module "one" and change the NEXT key. The NEXT key in module "one" will automatically be updated to point to module "math".

COPY A MODULE

To copy a module from this curriculum or a different curriculum, use option **5 (COPY a module).**

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

Suppose you want some of the modules in your curriculum to be the same as some of the modules in a different curriculum. You can do this by copying modules:

To copy modules from another curriculum:

1. Enter the **name of the other curriculum and the READ RECORDS codeword** for the other curriculum.

2. To copy **one module at a time** type the name of the module that you want to copy from.

Conditional entries and forced exists are not automatically copied from one module to a new module. Therefore, if the modules that you are copying use these, you will have to enter them into the new modules after you have completed the copying procedure.

3. To **copy multiple modules** press DATA for a list of modules instead of typing the module's name.

   You will then see a list of modules, each module with a number.

   a. Type the numbers of the modules. For example, typing "2,4-6,10" will put asterisks next to the modules #2, #4, #5, #6, and #10.

   b. To remove an asterisk, type the number of the module which already has the asterisk.

   c. Press SHIFT-NEXT when all of the modules that you want to copy have asterisks.

   d. Conditional entries and forced exists are not automatically copied from one module to a new module. Therefore, if the modules that you are copying use these, you will have to enter them into the new modules after you have completed the copying procedure.

Example:

Suppose you want to copy a module "main" into your curriculum. Let's assume that module "main" has two module lines named "one" and "two".

If module "one" does not yet exist in your curriculum, then an empty module "one" will be created and you will need to copy module "one" from the other curriculum.

If you already have a different module "two" in your curriculum, then you will need to copy the new module "two" into a different name (let's call the new name "second"). Then you will need to go into module "main" and change the module line name from "two" to "second".

Automatic Copying of Modules Referenced by Module Lines

In the above example, modules "one" and "two" were not automatically copied when module "main" was copied. Instead, blank modules were created for modules "one" and "two". It is possible to scan your curriculum for blank modules and then have those blank modules automatically copied from the other curriculum. To do this (after you have already copied the main module):

- choose the option to copy modules
- enter the name of the other curriculum
- press SHIFT-LAB to scan for blank modules and copy them

Warning:

When you copy modules, the following are not automatically copied:

- conditional branching
- forced exits

COPY FROM AN *M-ROUTER* INSTRUCTOR FILE

Some users may have developed a curriculum with a router called *M-router*. If you have decided to switch from *M-router* to *C-router*, it is possible to have *C-router* automatically convert the curriculum for you. To do this:

1. Put a **typeable USE code on your *M-router* ifile** (this can be done by entering the *M-router* group, choosing **Curriculum Options**, and then press DATA for ifile information.)
2. Use *accounts* to **create a *C-router* curriculum file.**
3. Enter *C-router*/Curriculum Options, and choose **Copy a Module.**
4. Press **SHIFT-DATA** to copy a module from *M-router*.

This procedure does copy:

- the lesson catalog
- the text associated with modules
- the next/back sequencing (if copying into an empty curriculum)
- the initial module setting (if copying into an empty curriculum)

This procedure does not copy:

- sequences
- completion criteria

DELETE A MODULE

To destroy a module, use option 6 (**Delete a module**).

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

To delete one module at a time:

1. Type the **name of the module** that you want to delete.
2. Press **NEXT** after typing the name.
3. Press **SHIFT-HELP** (an extra precaution) before the module is deleted.

To delete more than one module at a time:

1. Pressing DATA for a list of modules instead of typing the module's name.

   You will then see a list of modules, each module with a number.

   a. Type the numbers of the modules. For example, typing "2,4-6,10" will put asterisks next to the modules #2, #4, #5, #6, and #10.

   b. To remove an asterisk, type the number of the module which already has the asterisk.

   c. Press SHIFT-NEXT when all of the modules that you want to copy have asterisks.

Example:

Suppose you delete a module which is referenced by a second module (for example, listed as a module line or as a function key in the second module). If this happens, then that reference in the second module will be cleared.

CHAPTER 7: SEE CATALOG

The *C-router* curriculum editor maintains three catalogs:

- a list of lessons used in the curriculum,
- a list of modules used in the curriculum,
- and a list of graphics used in the curriculum.

Use option **7 (See CATALOGS/VERIFY Curriculum)** to see (or verify) the catalogs.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

lesson catalog

Every time a new lesson is added to the curriculum, the lesson is given a unique identifier (id) number. A lesson which is used more than once in a curriculum will only have one id number and will only be listed once in the catalog. This means that there will also be only one entry for each student in the student data file for this lesson.

If a lesson is deleted from the curriculum, it is not automatically deleted from the catalog. A lesson which had been used at one time in the curriculum but which was later removed is an *unreferenced lesson*. Unreferenced lessons can be deleted from the catalog. To delete an unreferenced lesson from the catalog, use either the option to **See where a lesson is referenced** or **List all unreferenced lessons**. These options will allow you to delete unreferenced lessons. WARNING: delete unreferenced lessons only if your student data does not contain entries for the lesson. Otherwise, deleting the lesson could cause problems with your student data.

The option to rename a lesson allows you to change a filename or off-line assignment name and transfer the student data which was associated with the old name to the new name. (If you replace a lesson or off-line assignment name by using the R editing directive when editing a module, all of the student data associated with the old name will not be associated with

the new name.) If you rename a lesson or off-line assignment by using the lesson catalog options, all occurrences of the name will be changed in each module where it is used.

The option to generate a leslist is useful for programmers who need a list of lessons used by the curriculum. A leslist will allow the programmer to store the list of the lessons in his/her own TUTOR file. NOTE: off-line assignments are also stored in this leslist.

module catalog

The module catalog is a list of all modules which currently exist in the curriculum. If a module is deleted, its entry is deleted from the module catalog.

An unreferenced module is one which has been created but which a student cannot see. A module is unreferenced if all of the following are true:

- there is no way to get to it from another module (either by module line or by function key)
- it is not the initial module in the curriculum
- it is not in the Universal Key Table

You can delete unreferenced modules by using the option to **See where a module is referenced** or the option to **List all unreferenced modules**. Either option will allow you to delete unreferenced modules.

graphics catalog

The graphics catalog contains a list of all graphics which have been created and were never destroyed. If a graphic is destroyed, it is deleted from the graphics catalog.

An unreferenced graphic is one which was created but which is not listed in any of the modules within the curriculum.

You can use the graphics catalog to copy graphics either from another curriculum or from the current curriculum.

You may also delete graphics. It is a good idea to delete graphics if they are not being used so as not to waste space in your curriculum file.

verify curriculum

On very few occasions, lessons or modules may be stored incorrectly in a *C-router* catalog. If this happens, you will probably receive error messages. You can use the Verify options to locate and fix the problem in your *C-router* catalogs.

There are three Verify routines; one to Verify the Lesson Catalog, one to Verify the Module Catalog, and one to Verify Module Lines. The Verify Module Lines routines looks at every module in the curriculum and makes sure that every lesson or module line refers to an entry in the lesson or module catalog. You will be informed if a line references something that doesn't exist in the catalogs. In that case, you will need to replace that line. You should enter the Verify Module Lines option every time after you Verify the Lesson Catalog and Verify the Module Catalog.

CHAPTER 8: SPECIFY ALTERNATE CHARACTER SET

To write in a different style, or different alphabet, use option 8 (**Specify an alternate CHARACTER SET**).

In addition to the letters and symbols which are always available from the keyset, authors can design special character sets. (See lesson "aid" for more information.) Since it takes a while to load the alternate character set into the terminal, you should use them only when it is necessary. An example of a good use of an alternate character set would be for a Hebrew curriculum.

You must create the character set first. Then enter your curriculum and specify the name of the lesson which contains the character set and the name of the block where the character set is stored.

When you are editing the module, type FONT (which is a shifted key), when you want to switch into, or out of, the alternate character set.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

CHAPTER 9: PRINT A CURRICULUM

To get a copy of your curriculum on paper, use option **9** (**PRINT Curriculum**).

This option will allow you to get a printed copy of your curriculum on paper. You can print any or all of the following:

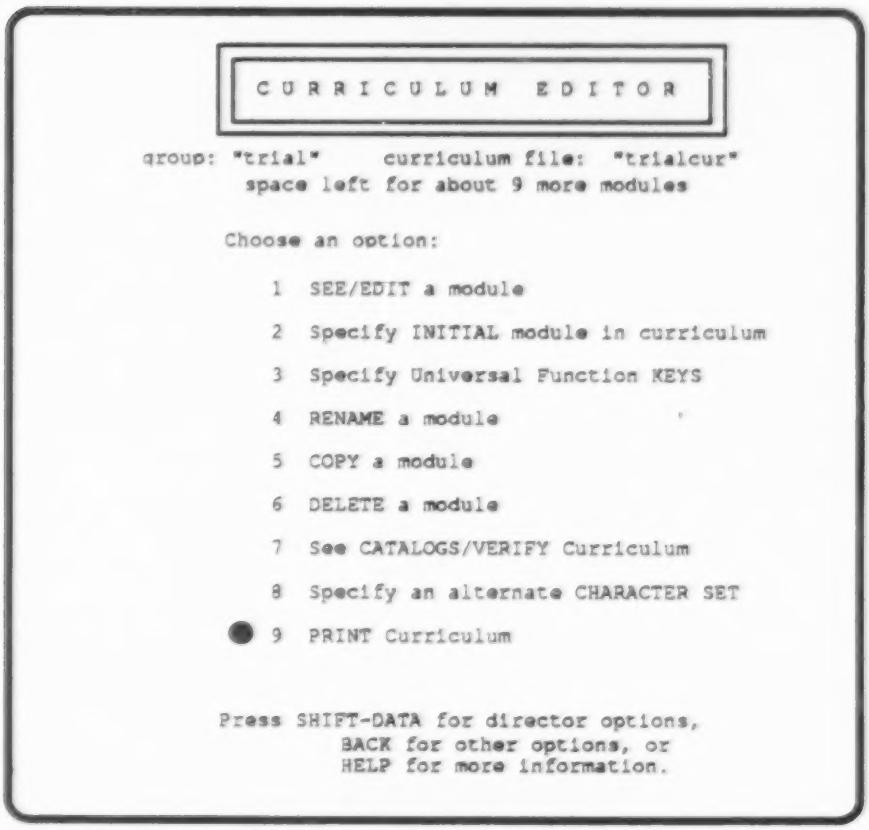
- lesson catalog
- module catalog
- some or all of the module displays and sequencing

You must provide an empty nameset, or dataset,where your curriculum will be stored in a format that is suitable for printing. (If you want to download your data to a microcomputer file for printing, you should use a dataset.) Therefore, you will need to ask your account director to create a nameset or dataset for you. *C-router* will estimate how large your nameset or dataset should be if you choose option **9** (**Print Curriculum**).

If you are using a dataset, the end of the data will be marked by the string "*format end". You may want to search for that string so that you can zero the remainder of the dataset.

After this option has completely stored the curriculum, you can print the nameset or dataset. There are several different ways to print the curriculum.

1) You can download the data to a file on your microcomputer and print the data with a printer connected to your microcomputer. The download capability (lesson "kermit") is available when you are connected to The NovaNET system. with a microcomputer using the Level 1 Protocal Program (L1PP). For more information, see the lesson "kermit" and the L1PP manual.
2) You can use the NovaNET print utilities available in lesson "print". This lesson includes a selected list of printers which can be connected to your NovaNET terminal. (The option for requesting prints from the central computer can only be used by users on the University of Illinois campus with files on the Cerl system.)


CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

CHAPTER 10: USING TESTS

Your students can take tests as part of their *C-router* curricula. The tests can either be on the computer (on-line) or off of the computer (off-line). *C-router* can associate scores with the tests, and then the *C-router* curricula can do conditional branching based on the scores. (For more information on conditional branching, look in the index under "conditional".) This type of structure could be used for delivering pre-tests and post-tests.

An off-line test is treated the same as any other off-line assignment. To add an off-line test to the curriculum, use the *O* editing directive. You can associate scores with the off-line tests under the Student Data options. (Press SHIFT-DATA to alter data when looking at the data for the off-line test.)

An on-line test is treated the same as a NovaNET lesson. To add an on-line test to the curriculum, use the *L* editing directive. If the test sets a score, the score will be automatically stored in the student data.

It is possible to create tests by programming a TUTOR lesson to deliver the test. If your test is stored in a TUTOR file, specify the TUTOR filename when using the *L* directive.

However, since many tests are structured the same, you may want to use an existing test editor to create the test. The advantages to using a test editor are that you don't have to be a programmer, and that tests can be created much quicker with a test editor.

Test editors usually require you to create a nameset or dataset where your test can be stored. You need to specify a processor lesson in the directory of the nameset or dataset. The processor lesson "processes" the test data in such a way that it delivers the test to the student. The processor lesson also returns a score to the router. If your test was stored in a nameset or dataset, specify the nameset or dataset filename when using the *L* directive.

There are several different test editors/processors on the NovaNET system. Any of these testing packages should work with *C-router*.

TESTING 1-2-3

The testing package called Testing 1-2-3 was developed by the CERL Curriculum and Applications group. Special enhancements were made to *C-router* to allow for storing Testing 1-2-3 data and for branching based on Testing 1-2-3 data.

Some Testing 1-2-3 tests assign test questions to tracks and the instructor may want to know which tracks were passed or failed by the student. *C-router* automatically stores the overall score and track information for every Testing 1-2-3 test.

See Answers

If an instructor wants to see how a student answered the test question, a nameset must be created for storing that information.

The size of the nameset should be:

record size	-- 64 words
name size	-- 30 characters
records	-- (number of students) x (number of tests)
names	-- number of students

The name of the nameset should be specified in the Associated Files for the group. To do this:

- Press SHIFT-DATA from the Managing Instruction Display
- Choose the option for Associated Files
- Choose the option for the Testing 1-2-3 file

If this Testing 1-2-3 nameset gets close to being full, warning messages will be sent to your student notes file. When the data is no longer needed, you should delete it. The data can be deleted under the Student Data options, either by One Student or All Students.

For More Information

For more information about using Testing 1-2-3 with *C-router*, look in the index of this manual under "Testing 1-2-3".

More information about this test package is available in the notes file "testing123" or by writing or calling:

Martin A. Siegel
Assistant Director, CERL
University of Illinois
Computer-based Education Research Laboratory
252 Engineering Research Laboratory
103 South Mathews Avenue
Urbana, Illinois 61801
217/333-3247

CHAPTER 11: DIRECTOR OPTIONS

The director options should be used by the owner of the curriculum. To get to the director options, press SHIFT-DATA.

There are two director options:
1) Destroy Entire Curriculum
2) Change Access List

These options are described on the following pages.

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
space left for about 9 more modules
Choose an option:
1 SEE/EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOGS/VERIFY Curriculum
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-DATA for director options,
BACK for other options, or
HELP for more information.

DESTROY ENTIRE CURRICULUM

To delete all of the modules, press SHIFT-EDIT (to destroy the curriculum).

This option completely destroys the curriculum. This means that all of the modules are deleted.

If someone else is using your curriculum for their group, you should inform them that you plan to destroy the curriculum before choosing this option. This will allow them to make alternate plans for their students before the curriculum is destroyed.

This is a very drastic measure and should be done only if you don't want to save any part of the curriculum. Since this is such a drastic measure, you will have to press SHIFT-HELP before the curriculum is destroyed.

The curriculum file keeps the last date that the file was destroyed. Therefore, if you destroy the curriculum and a student had been using the curriculum before it was destroyed, the student's student data will be destroyed the next time the student signs on. This is because the student data references lessons used in the previous curriculum, not in the current curriculum.

CHANGE ACCESS LIST

The access list specifies which signons are allowed to look at, and change, your curriculum.

If you don't specify a user in the access list, than that user must know either the Read Records codeword to Inspect your curriculum, or the Write Records codeword to change the curriculum.

If your Read Records codeword is blank, anyone may Inspect or Copy from your curriculum.

If you want to specify different access rights, you need to change the access list. The following types of access can be specified:

Inspect (no codewords)	The user can look at the curriculum but not change any of the information. The user will not have to specify a codeword. A user with inspect access can also copy the curriculum into another curriculum file.
Edit (no codeword)	The user can change any of the information in the curriculum without providing a codeword.
None	There is no way for the user to even look at the curriculum.
Special	You can turn some options on and some options off for the user. The user will not need to provide a codeword.
By Codeword	The user will have to provide the WRITE records codeword in order to change the curriculum or the READ records codeword in order to look at, or copy, the curriculum.

WARNING: Be sure to keep your access list up-to-date. If a signon is deleted, be sure to delete the entry in the access list. This is necessary because the signon could be re-created and given to someone who really should not have access to your group.

Signons are added to the access list by group. Up to 21 names and/or user types can be included for each group.

EXAMPLE: Suppose you want to specify that:

- the instructor davis/math can do every option without providing a codeword,
- all other instructors in group "math" can only copy modules and print the curriculum,
- anyone else on the system can have inspect access with no codeword.

To do this:

Give davis/math Edit Access.

- Choose to **Change ACCESS List** (from director options)
- enter ***math*** for the group name
- enter ***davis*** for the name of the user.
- Choose ***e*** for edit access.

Turn on *copy modules* and *print curriculum* options for all instructors in group *math*.

- you should now be editing access for group *math*
- enter **SHIFT-I** and press NEXT for all Instructors
- Choose s for special. You will then see the following display.

Access for: All Instructors
Type the option number that you want to change:
Or, Type "y" to set all options to "yes",
"n" to set all options to "no".
Press SHIFT-NEXT when done.
Press SHIFT-HELP to delete name.
>
Main Index Options
N 1) edit a module
N 2) create a module
N 3) change initial module
N 4) change univ. function keys
N 5) rename modules
N 6) copy modules
N 7) delete modules
N 8) delete/rename in catalogs
N 9) change alternate char. set
N 10) print curriculum
N 11) director options
(destroy curric +
change access list)
Module Editing Options
N 12) insert text lines
N 13) insert lesson lines
N 14) insert module lines
N 15) insert off-line
N 16) insert curricula
N 17) replace lines
N 18) delete lines
N 19) save lines
N 20) append lines
N 21) insert saved lines
N 22) change forced exit
N 23) change graphics
N 24) change function keys
N 25) change type of module

- Type **6** and press NEXT to turn on the option for copying modules.
- enter **10** and press NEXT to turn on the option for printing the curriculum.
- press **SHIFT-NEXT** to store

Allow all Other users to inspect with no codeword. (Note: you could also do this by putting a BLANK read-records codeword on the curriculum file.)

- you should now be able to enter a group name. Instead of entering a group name, press **LAB** for other groups.
- choose ***i*** for inspect.

Appendixes

A. Changes and Questions

B. C-router Training

C. File Structures

APPENDIX A (*C-ROUTER* CHANGES AND QUESTIONS)

C-router is a system supported utility that is still under development. Suggestions about improvements or changes to *C-router* are always welcome. The notes file "croutnotes" was created for:

- announcements of changes to *C-router*
- suggestions for changes to *C-router*
- questions about *C-router*
- sharing curricula or ideas with other *C-router* users.

All *C-router* users are strongly encouraged to put "croutnotes" on their notes file sequencers and to read the notes file regularly.

APPENDIX B (TRAINING *C-ROUTER* USERS)

The most important thing to remember when training *C-router* users is to never tell them more than they need to know. You can easily overwhelm a new user.

All new users should be given Instructor signons. Since Instructor signons use menus, instructors have an easier time exploring the system than a user with an Author signon. If at all possible, you should use an instructor signon when demonstrating the system. If new users have already seen the instructor menus, they will feel more at ease when they sign on for the first time.

Use the section of this manual "NovaNET Instructor Options" to teach instructors about some of the basic system features like P-notes and the NovaNET lesson catalog.

The first curriculum associated with the instructor's signon should be a broad, general purpose curriculum like "revcur3" or "elemcur1". They should browse through this curriculum to determine which modules are most appropriate for their students.

When you are ready to train the new users to set up their own group, use the section of this manual titled "Getting Started: A Step-by-Step Approach".

Initially you should only expect users to:

- review an existing curriculum to determine where their students should start, set group-specific initial module
- add student signons
- look at student data

You will probably need to give your instructors a print of the curriculum so that they can identify module names and filenames.

Ideally, instructors should be intimately familiar with the curriculum before their students use it. But, in reality, instructors often don't have the time to do such an in depth review. It may take several months of using the curriculum before instructors will be familiar enough with it to make changes. Therefore, don't teach instructors how to edit a curriculum until they express an interest in changing the curriculum. You should inform the instructors that it is possible to customize a curriculum, but don't burden them with the details until they indicate that they are ready.

This manual contains several exercises for advanced topics. Look in the index under *exercises* to locate these.

If you are going to be training a group of new users, you should create a separate group for each instructor to work with. The easiest way to do this is:

- Enter your account and create a *C-router* group (let's call the new group "train1").
- Enter your newly created *C-router* group ("train1")
  - specify the curriculum file
  - create an instructor signon called "instructor"
- Enter your account and choose to copy a file. Specify that you want to copy "train1" and make as many copies as you need. Name the new copies "train2", "train3", etc. (The instructors will be able to signon with the name "instructor" in one of the groups ("train1", "train2", etc.).)
- While you are still your account, create a *C-router* student data file and a P-note file for each group. These files are optional. If you do not want to save student data, don't create the student data files. If you do not want to allow the users to send p-notes, don't create the p-note files.
- Enter each group:
  - set the access for each instructor to "Edit"
  - specify the student data file if it isn't automatically specified

APPENDIX C (*C-ROUTER* FILE STRUCTURES)

Setting up Groups

If you have a normal group and need to set it up to be a "*C-router* group", you will have to do the following:

1. Have an *author* set some information in the group's directory.

This information can be set only by someone with an author signon (perhaps your account director).

To set the information in the group directory:

a. Enter the **name** of the group on the *AUTHOR MODE* display.

b. While in the group, **press DATA** for the **group description**. Pressing DATA will take you to the group directory.

c. Enter the **associated files** section of the group directory and set the **student router** to *crouter*. Also, set the **instructor router** to *icrouter*. You should also set the processor lesson to *crouter* with access of none (no).

d. Enter the **codeword** section of the group directory. Set the **write records** codeword to any typeable word. A typeable word is a codeword that you can type as opposed to a group or account coded codeword. In other words, after you enter this codeword you should see a row of *'s for the codeword. (Users who know this codeword will be able to change your group. Therefore, be careful about releasing the codeword.)

Setting up a Curriculum File

If you have a nameset and need to set it up to be a *C-router* curriculum file, you will have to do the following:

1. Make sure the nameset is the **correct size.**
   (You will need to determine the number of modules (or displays) that you will need for the curriculum. To determine the number of modules, use the chapter of this manual "Structure of a Curriculum".)

   The size of the nameset should be:

record size	-- 64 words
name size	-- 20 characters
records	-- (number of modules + 11) x 2.5
names	-- number of modules + 11

   (If you are interested in how much disk space this uses, you can estimate about 1 disk part for every 13 modules.)

2. Have an author set some information in the nameset's **directory**:

   a. Type the nameset's **name** on the *AUTHOR MODE* display.

   b. While in the nameset, press DATA for **file information** which will take you to the **file directory**.

   c. Enter the **associated files** section of the directory. Set the **processor lesson** to *C-router* and give it **read only** (ro) access.

   d. Enter the **codewords** section. Set the **write records** codeword to a typeable word. A typeable word is a codeword that you can type as opposed to a group or account coded codeword. In other words, after you enter this codeword you should see a row of *'s for the codeword. (Users who know this codeword will be able to change your curriculum. Therefore, be careful about releasing the codeword.)

Creating Student data files

If you have a nameset and need to set it up to be a *C-router* student data file, you will have to do the following:

1. Make sure the nameset is the **correct size.**

    a. Determine the **maximum number of students.** (This will be called "max.stus".)

    b. Determine the **average number of lessons that each student will go into.** (This will be called "avg.les".)

    The size of the nameset should be:

record size	-- 64 words
name size	-- 30 characters
records	-- ((max.stus+1) x (1+int(avg.les/10))) + max.stus
names	-- max.stus + 1

    (If you are interested in how much disk space this will use, you can estimate that the number of disk parts is equal to ((max.stus x avg.les)/200).)

2. Have an author set some information in the nameset's **directory**:

    a. Type the **name** of the nameset on the *AUTHOR MODE* display.

    b. While in the nameset, press DATA for **file information**, which will take you to the file directory.

    c. Enter the **associated files** section of the file directory. Set the **processor lesson** to *C-router* and give it **read/write** (rw) access.

    d. Enter the **codewords** section and set the **write records** codeword to a typeable word. A typeable word is a codeword that you can type as opposed to using group or account coded codewords. In other words, after you enter this codeword you should see *'s for the codeword. (Users who know this codeword will be able to attach this student data file to their group. Therefore, be careful about releasing the codeword.)

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